

AMENOREE NA VESIKOVAGINALE FISTEL*

(AMENORRHOEA AFTER VESICOVAGINAL FISTULA)

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Te danke aan die werk van James Marion Sims hoef ons vandag nie meer so swartgallig te voel oor hierdie oeroue probleem in die ginekologie, soos in die dae toe Sir J. Y. Simpson dit beskryf het as, 'the most depressing and deplorable of all the infirmities to which woman is liable, a condition looked upon as beyond all relief and hope',¹ nie. Danksy beter verloskundige en profilaktiese behandeling, kan Chassar Moir die stelling maak dat 'n ginekoloog in Engeland waarskynlik nie meer as 'n half dosyn gevalle van vesikale fistels gedurende sy loopbaan sal sien nie, tensy hy doelbewus pasiënte van verafgeleë sentra trek.²

Sover dit ons blanke bevolking in Suid-Afrika betref, mag so 'n bewering ook nog van toepassing wees, maar onder die Bantoe-rasse met hulle primitiewe gewoontes en ondoeltreffende obstetriese behandeling, sowel as hulle neiging tot vernoude bekken, kom vesikovaginale fistels nog so dikwels voor dat in die ginekologiese afdeling van die Pretoriase Algemene Hospitaal alleen gemiddeld 3 nuwe gevalle per maand opgeneem word. Die oorgrote meerderheid hiervan is *post partum* gevalle.

Nou dat die probleem van herstel van die fistels grootliks opgelos is, en dit maar net in die uitsonderlike geval nodig is om tot oorplanting van die ureters oor te gaan ('n erkenning van mislukking volgens Chassar Moir³), begin 'n ander probleem sy kop uitsteek, naamlik dat so baie van die gevalle aan amenoree ly. Veral onder die Bantoe waar fertiliteit so 'n belangrike vereiste vir die vrou is, en amenoree geassosieer word met steriliteit, is hierdie 'n uiters ernstige komplikasie. En, juis omdat vesikovaginale fistels so dikwels onder die Bantoe voorkom, kan dit selfs in 'n sosiale probleem ontwikkel.

Die literatuur oor hierdie aspek van vesikovaginale fistels is uiters skraal. Hier en daar noem 'n skrywer dit, maar niemand skyn 'n ernstige poging aan te wend om dit te verklaar nie. Dit is dan in 'n poging om meer lig op hierdie komplikasie te werp en verdere navorsing in die rigting te prikkel, wat my laat besluit het om hierdie onderwerp vir my projek te kies.

ONTLEDING VAN 147 GEVALLE

Vanaf begin Augustus 1953 tot die end van Oktober 1957 is 147 gevalle van vesikovaginale fistels in die ginekologiese Nie-blanke afdeling van die Pretoriase Algemene Hospitaal opgeneem vir behandeling. Dit sluit nie in heropnames van gevalle wat voorheen gedurende hierdie tydperk opgeneem

* Lesing gelewer by die Kongres van die Suid-Afrikaanse Vereniging van Verloskundiges en Ginekoloë in Augustus 1958 te Pretoria.

is nie, m.a.w. daar was 147 pasiënte en nie 147 opnames nie. Sommige van hierdie pasiënte is meer as eenmaal gedurende hierdie tydperk opgeneem oor verskillende redes: omdat hulle vorige operasie misluk het, omdat hulle die vorige keer te gou na kraam ingekom het, omdat hulle gevra is om weer te kom vir opvolging, en nog meer sulke redes.

Ouderdom van die pasiënte by eerste opname: Uit die 147 pasiënte was 26 onder die ouderdom van 20 jaar, 76 tussen 20 en 29 jaar, 22 tussen 30 en 39 jaar, 10 tussen 40 en 49 jaar, en 4 was 50 jaar of ouer. Die ouderdom van 9 van die pasiënte is nie gemeld nie. Hulle is bloot as 'volwasse' beskryf.

Oorsake van die Fistels

A. Obstetriese oorsake. Van die gevalle kon 135 aan obstetriese oorsake toegeskryf word en wel as volg:

1. Druk-nekrose as gevolg van moeilike lang kraam. Hieronder was 91 spontane geboortes, 23 tangverlossings, 2 kraneotomies, 14 keisersnee, 1 keisersnee plus histerektomie, en 1 waar die wyse van kraam nie genoem is nie.

2. Besering as gevolg van obstetriese operasies. Twee gevalle het elk 'n klein vesikovaginale fistel in die koepel van die vagina ontwikkel na 'n histerektomie vir ruptuur van die uterus, terwyl 1 geval 'n ureterovaginale fistel ontwikkel het na keisersnee plus histerektomie.

B. Ginekologiese oorsake. Karsinoom van die cervix was verantwoordelik vir 4 gevalle en radium-brand vir 1, terwyl 1 geval gevolg het op histerektomie. Lysol in die vagina in 'n poging om aborsie aan te bring was die oorsaak van 1 geval, en 1 het gevolg op 'n poging tot oopmaak van 'n vaginale stenose. Nog 1 geval het gevolg op 'n operasie waarvan die aard nie genoem is nie. By 3 gevalle was die oorsaak nie heeltemal duidelik nie.

ANDER FAKTORE

Pariteit. Van die 135 gevalle wat aan obstetriese oorsake toegeskryf kon word, was 90 primiparae, 13 para 2, 6 para 3, 6 para 5, 3 para 6, 6 para 7, 2 para 8, 2 para 9, 2 para 10, 1 para 12, en in die geval van 4 pasiënte is die pariteit nie aangeteken nie.

Duur van die fistel by eerste ondersoek. Binne 3 maande na die fistel ontwikkel het is 30 gevalle in die hospitaal opgeneem, 11 gevalle het op 3 maande gekom, 20 op 4 maande, 10 op 5 maande, 9 op 6 maande, 4 op 7 maande, 5 op 8 maande, 4 op 9 maande, 3 op 10 maande, 15 op 12 maande, 2 op 13 maande, 2 op 15 maande, 1 op 16 maande, 3 op 18 maande, 13 op 2 jaar, 5 op 3 jaar, 1 op 4 jaar, en 3 op 5 jaar. In die geval van 6 pasiënte is die ouderdom van die fistel nie genoem nie.

Amenoree. As ons al die gevalle van minder as 4 maande na kraam uitsluit (om gevalle van fisiologiese *post partum* amenoree uit te skakel), bly daar 55 gevalle oor wat amenoree ontwikkel het na die ontstaan van die fistel. Hieronder was daar 4 gevalle van karsinoom van die cervix, 5 gevalle wat histerektomie ondergaan het, 2 na-menopousale gevalle (1 wat 50 jaar was en 1 van 68 jaar) en 1 geval wat waarskynlik na-menopousaal was. Dit laat ons dan met 43 gevalle. In 8 van hierdie oorblywende gevalle het die kind nog gelewe of was dit nie duidelik of die kind dood was nie, en was die tydperk minder as 6 maande na kraam. Ont dus laktasie-amenoree of 'n moontlike laktasie-amenoree uit te skakel, is hulle ook nie bygereken nie, wat ons dan laat met 'n gekorrigeerde syfer van 35 gevalle van skynbaar onverklaarbare amenoree onder 147 gevalle van vesikovaginale fistels.

Menstruasie het definitief voorgekom by 58 gevalle nadat die fistel ontwikkel het. Hierdie syfer sluit nie gevalle in waar die lochia miskien deur die pasiënt as menstruasie aangesien kon word nie.

Grootte van die fistel. Onder die gevalle wat definitief amenoree gehad het wat nie deur ander oorsake kon verklaar word nie, d.w.s. die 35 gevalle soos hierbo ontleed, was die fistel in 21 gevalle (60%) $\frac{1}{4}$ duim of meer in deursnit. In 5 gevalle is die grootte van die fistel nie genoem nie, en in 2 was dit $\frac{1}{4}$ duim in deursnit, terwyl dit in 6 gevalle as 'klein' beskryf is. As ons die 5 gevalle waar die grootte van die fistel nie genoem is nie weglaat, dan was 70% van die fistels $\frac{1}{4}$ duim of meer in deursnit.

Van die gevalle het 58 beslis nie aan amenoree gely nie. By hulle was die fistel in 22 gevalle (37%) $\frac{1}{4}$ duim of meer in deursnit, in 10 gevalle $\frac{1}{2}$ duim of kleiner en in 10 is dit as 'klein' beskryf. In 16 gevalle is die grootte nie aangeteken nie. As ons hierdie 16 gevalle weglaat, dan was die deursnit van die fistels by 52.4% $\frac{1}{4}$ duim of meer.

Volgens Pearson se formule is die standaard fout in hierdie geval 11.4. Die verskil tussen 70% en 52.4% is nie groter as tweemaal hierdie standaard fout nie en is dus nie statisties groot genoeg om die grootte van die fistel te blameer vir die amenoree nie.

As ons hierdie twee groepe, die groep met amenoree en die menstruerende groep, nader beskou, kom daar 'n ander faktor te voorskyn, naamlik, hoe lank die pasiënt gewag het voordat sy mediese hulp ingeroep het vir haar toestand. Wat ons hier probeer uitvind, is of die groep wat nie menstrueer

TABEL I. GEVALLE MET AMENOREE

Duur van fistel	Getal	Grootte van fistel
Binne 1 maand ..	2	$1\frac{1}{2}$ duim, 'groot'
Binne 4 maande ..	7	'klein', 'klein', 'klein', $\frac{1}{4}$ duim, $\frac{1}{2}$ duim, $\frac{1}{2}$ duim, $\frac{1}{2}$ duim
Binne 5 maande ..	2	$1\frac{1}{2}$ duim, 'groot'
Binne 6 maande ..	4	$\frac{3}{4}$ duim, $\frac{1}{2}$ duim, $\frac{1}{2}$ duim, $\frac{1}{2}$ duim
Binne 8 maande ..	3	$\frac{3}{4}$ duim, $\frac{1}{2}$ duim, $\frac{1}{2}$ duim
Binne 9 maande ..	2	$\frac{3}{4}$ duim, 'baie klein'
Binne 1 jaar ..	6	'Groot', 'groot', 'groot', $1\frac{1}{2}$ duim, $\frac{1}{2}$ duim, $\frac{1}{2}$ duim en $\frac{1}{2}$ duim*
Binne 18 maande ..	1	? grootte†
Binne 2 jaar ..	5	$\frac{1}{2}$ duim, $\frac{1}{2}$ duim, $\frac{1}{2}$ duim, $\frac{1}{2}$ duim, ?
Binne 3 jaar ..	2	'Baie groot', $\frac{1}{2}$ duim
Duur onbekend ..	1	Grootte onbekend

* By een van hierdie gevalle was dit al die derde poging tot herstel, wat ons dus regverdig om haar as binne die 9 maande groep te beskou.

† Dit was die vierde poging by haar. Sy het dus baie vroeër al laat werk maak van die toestand.

eer het nie, vroeër hulp gevra het en sodoende getoon het dat hulle meer ontsteld was deur die toestand. Indien dit wel die geval is, mag dit 'n argument ten gunste van 'n neurovegetatiewe refleks wees.

1. Die groep met amenoree. As ons hierdie groep ontleed (Tabel I), vind ons dat 21 (60%) binne 9 maande mediese hulp ingeroep het. Onder hulle was die fistel in 7 gevalle kleiner as $\frac{1}{4}$ duim in deursnit. Verdere ontleding toon aan dat 26% binne 4 maande hulp gesoek het, 43% binne 6 maande, en 63% binne 1 jaar (d.w.s. as die een met die derde poging tot herstel en die een met die vierde poging as binne 1 jaar beskou word) en 23% het 2 jaar of langer gewag voor hulle hulp gesoek het.

2. Die menstruerende groep. By ontleding van hierdie groep (Tabel II) vind ons dat 27 van hulle (46.6%) binne 9 maande gekom het—by 8 van hulle was die fistels kleiner as

TABEL II. GEVALLE MET MENSTRUASIE

Duur van fistel	Getal	Grootte van die fistel
Binne 3 maande ..	5	$\frac{3}{4}$ duim, $\frac{1}{2}$ duim, $\frac{1}{2}$ duim, $\frac{1}{2}$ duim, $\frac{1}{2}$ duim
Binne 4 maande ..	9	$\frac{1}{4}$ duim, $\frac{1}{4}$ duim, 'klein', $\frac{1}{2}$ duim, $\frac{1}{2}$ duim, $\frac{1}{2}$ duim, 'baie klein', $\frac{1}{2}$ duim, $\frac{1}{2}$ duim
Binne 5 maande ..	5	$\frac{1}{4}$ duim, 'groot', 'baie klein', 'klein', 'baie klein', $\frac{1}{2}$ duim, $\frac{1}{2}$ duim
Binne 6 maande ..	3	$\frac{1}{2}$ duim, 'groot', $\frac{1}{2}$ duim
Binne 7 maande ..	3	$\frac{1}{4}$ duim, $\frac{1}{4}$ duim, ?
Binne 8 maande ..	2	'Klein', $\frac{1}{4}$ duim
Binne 10 maande ..	3	$\frac{1}{2}$ duim, $\frac{1}{2}$ duim, $\frac{1}{2}$ duim
Binne 12 maande ..	10	$\frac{1}{2}$ duim, 'groot', 'groot', 'klein', $\frac{1}{2}$ duim, $\frac{1}{2}$ duim, $\frac{1}{2}$ duim, 'baie klein', $\frac{1}{2}$ duim, 'baie klein', ?
Binne 13 maande ..	2	'Baie groot', ?
Binne 15 maande ..	2	'Baie klein', 'klein'
Binne 16 maande ..	1	'Speldekop-grootte'
Binne 18 maande ..	2	'Klein', 'speldepunt'
Binne 2 jaar ..	5	$\frac{1}{2}$ duim, 'groot', 'klein', $\frac{1}{2}$ duim, $\frac{1}{2}$ duim
Binne 3 jaar ..	3	'Baie klein', $\frac{1}{2}$ duim, ?
Binne 4 jaar ..	1	? grootte
Binne 5 jaar ..	2	'Speldekop', 'groot'

$\frac{1}{4}$ duim in deursnit; 24% het binne 4 maande gekom, 38% binne 6 maande, 51.7% binne 12 maande, terwyl 19% 2 jaar of langer gewag het voordat hulle hulp gesoek het. Tabel III stel 'n vergelyking tussen hierdie twee groepe voor gebaseer

TABEL III. DUUR VAN FISTEL BY DIE TWEDE GROEPE

Duur van fistel	Amenoree-groep	Menstruerende groep
Binne 9 maande ..	60%	46.6%
Binne 4 maande ..	26%	24%
Binne 6 maande ..	43%	38%
Binne 12 maande ..	63%	51.7%
2 jaar of langer ..	23%	19%

op die duur van die fistel soos hierbo ontleed. Die grootte persentasie-verskil vind ons hier by 9 maande, naamlik 13.4, terwyl die standaardfout in hierdie geval 10.8 is. Statisties het ons dus geen bewys dat die groep met amenoree vroeër hulp gesoek het nie.

BEHANDELING VAN DIE FISTELS EN DIE RESULTATE

Van die fistels is 106 vaginaal herstel, waarvan 80% volkome suksesvol was, 3 genees het maar druklek oorgehou het, 21 afgebreek het, terwyl die resultaat by 2 gevalle onbekend is. Van die vaginale operasies was 75.5% dus suksesvol. Een geval wat transvesikaal deur die uroloë herstel is, het afgebreek, 1 geval is transperitoneaal herstel en het mooi genees, 1 geval suprapubies herstel en het afgebreek, 18 gevalle is

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huis toe gestuur omdat hulle te gou na kraam ingekom het, terwyl 5 huis toe gestuur is onder ander redes. Een geval het hospitaalbehandeling geweier.

Utereroorplanting is in 12 gevalle gedoen. Twee hiervan is gevalle wat op versoek van die uroloë aan hulle oorhandig is en wat hulle besluit het nie geskik vir herstel was nie. Die een het geen uretra gehad nie en die ander een het 'n vesiko-vaginale fistel gehad wat ontwikkel het na 'n histerektomie. Die ander 10 gevalle is almal deur die ginekologiese afdeling self behandel. Vyf van hulle het reeds voorheen mislukte pogings tot vaginale herstel ondergaan. In die geval van 4 was die fistel so groot en/of die vagina so verskrimp, dat dit tegnies onmoontlik beskou is om dit vaginaal te genees. Een geval het 'n fistel gehad as gevolg van karsinoom van die cervix en 'n herstel-operasie is nie probeer nie. Vyf gevalle het geen behandeling ondergaan nie. Colpocleisis is in 1 geval gedoen. 'n Uretraplastiek is in 1 geval probeer maar dit het misluk.

INDIVIDUELE GEVALLE

Tot dusver is in 28 gevalle spesiale ondersoeke gedoen en opgevolg. Hieronder was 14 gevalle met amenoree en 14 gevalle wat gewoonweg aangehou het om te menstrueer. Afgesien van die algemene ondersoek van die pasiënt, is spesiale aandag geskenk aan:

1. *Die toestand van die vagina.* Daar is spesiaal opgelet of daar enige meganiese afsluiting is wat verantwoordelik vir die amenoree mag wees.

By 2 gevalle was die vagina klinies heeltemal afgesluit bokant die fistelopening (gevalle 13 en 14) sodat in albei gevalle 'n vaginale plastiek met veltransplantasie oor 'n vorm gedoen is. In nie een van hierdie gevalle is tekens van 'n hematokolpus gevind nie, sodat die amenoree tog as werklik beskou kan word.

2. *Die toestand van die cervix.* (Of dit oop is of afgesluit.) In nie een van die gevalle waar ons die cervix met 'n peil kon bykom, is die cervikale kanaal afgesluit gevind nie. In die gevalle waar die toestand van die vagina peiling van die cervix tegnies onmoontlik gemaak het, het vaginale en rektale ondersoek 'n mens nie die indruk gegee van 'n moontlike hematometra nie.

3. *Die uterusholte.* Hier was ons moeilikheid dieselfde as by peiling van die cervix of by die verkryging van endometriële biopsies, naamlik die tegnies moeilikheid om altyd met 'n peil in die uterusholte in te kom omrede van die harde dik bindweefsel om die fistelarea. Waar ons tog wel die uterus kon peil, het ons nie een geval van senechium teëgekron nie.

4. *Grootte van die uterus met cervix/corpus-verhouding.* In al die gevalle waar peiling van die uterus moontlik was, is die uterine-indeks binne normale perke gevind.

5. *Bloedchemie.* Bloedmonsters is ontleed vir proteïene-inhoud, urea, natrium, kalium, chloor, cholesterol, en kool-

suurgasverbindingsvermoë. Geen verskil is gevind tussen die amenoree-groep en die groep wat wel menstrueer het nie. Die gemiddelde waardes is soos in Tabel IV aangetoon en is heeltemal binne normale perke.

6. *Endometrium en vaginale slymvlies.* Sover moontlik is by elkeen van die gevalle 'n endometriële biopsie geneem asook 'n vaginale smeer en/of vaginale biopsie, ten einde die ovariale funksie te probeer vasstel. Hiervolgens was die ovariale funksie by die menstruerende groep normaal terwyl die vaginale smere in die groep met amenoree of geen of uiters min kornifikasie getoon het.

7. *Hipofise.* F.S.H.-bepaling is by sommige van die pasiënte gedoen, maar hier het ons voor twee struikelblokke te staan gekom: Eerstens was daar die moeilikheid om 'n 24-uur-urinemonster voor die operasie te kry. Dit was uit die aard van die saak feitlik onmoontlik. Net na die operasie is ons pasiënte op 'n aanhoudende suiging van die blaas geplaas wat die verkryging van 'n monster ook bemoelilik het weens die aard van ons suigapparaat. Die paar monsters wat ons geneem het is dus eers verkry nadat die pasiënt op die veertiende na-operatiewe dag van die suiging afgeneem is. Hierdie gegewens was dus heeltemal onbetroubaar omdat dit te lank na die operasie verkry is.

Eindelik het ons 'n metode uitgewerk waarvolgens ons enige tyd na die operasie so 'n monster kon kry sonder om die suiging te belemmer en in ons volgende reeks gevalle sal ons dus 'n meer betroubare syfer kan verwag. Selfs hiermee is ek egter nie baie tevrede nie, want die spannings-toestand veroorsaak deur die operasie alleen mag verantwoordelik wees vir misleidende gegewens.

Opvolging

Die groep met amenoree is opgevolg spesiaal met die oog op hulle toekomstige menstruele geskiedenis.

Geval 1. In Augustus 1955 is 'n tangverlossing vir haar gedoen. Die fetus is dood gebore en 'n vesikovaginale fistel het ontwikkel. Sy het nie weer gemenstrueer nie. Op 27 Januarie 1956 is haar ureters oorgeplant in die colon sigmoideum. Gedurende die eerste week in April 1956 het sy 3 dae lank gemenstrueer. Daarna was sy elke 3 maande terug vir opvolging en menstrueer nog gereeld elke maand 2 tot 3 dae lank.

Geval 2. Sy het nie weer gekom vir opvolging nie. Haar fistel het in elk geval weer afgebreek.

Geval 3. Haar fistel is genees, maar sy het nie weer gekom vir opvolging nie.

Geval 4. Haar fistel is ook genees, maar sy het ook nie weer gekom vir opvolging nie.

Geval 5. In Januarie 1956 het sy 'n tangverlossing gehad met 'n doodgebore fetus en 'n gevolglike vesikovaginale fistel. Sy het nie weer gemenstrueer nie. Op 8 Junie 1956 is sy met welslae geopereer. Gedurende die begin van September 1956 het sy 5 dae lank gemenstrueer en weer 5 dae lank gedurende die begin van Oktober 1956. Daarna het ons nie weer van haar gehoor nie.

Geval 6. Sy het 'n tangverlossing op 10 Maart 1956 gehad met 'n gevolglike vesikovaginale fistel gepaard met amenoree. In Augustus 1956 is die fistel, wat ongeveer 1½ duim in deursnit was, herstel. Hierna het sy weer begin menstrueer, alhoewel daar nog urine deur 'n baie klein gaatjie geleek het. Hierdie gaatjie is in Februarie 1957 met welslae herstel en in Junie 1957 het sy gerapporteer dat sy nog gereeld menstrueer.

Geval 7. Sy het in Junie 1956 'n groot vesikovaginale fistel ontwikkel na 'n tangverlossing en nie weer daarna gemenstrueer nie. Op 6 November 1956 is die fistel met welslae herstel. Vanaf Mei 1957 het sy weer begin menstrueer en teen die end van Augustus 1957 het sy gerapporteer dat sy nog gereeld elke maand 6 dae lank menstrueer.

Geval 8. Sy het 'n groot vesikovaginale fistel ontwikkel na 'n tangverlossing op 7 Januarie 1957. Op 27 Mei 1957, en weer op 14 Oktober 1957, is 'n hersteloperasie vir haar gedoen, wat

TABEL IV. ONTLEDING VAN BLOEDMONSTERS

	Amenoree	Menstruerend
Totale proteïene	7.98 g. %	7.64 g. %
Albumine	4.22 g. %	4.15 g. %
Globuline	3.76 g. %	3.49 g. %
Urea	36 mg. %	34.6 mg. %
Natrium	143.9 m.e./l.	149.8 m.e./l.
Kalium	5.1 m.e./l.	5.1 m.e./l.
Chloor	102.1 m.e./l.	102.9 m.e./l.
Cholesterol	178 mg. %	220 mg. %
Koolsuurgasverbindingsvermoë ..	—	42.6 vols. %

albei misluk het. Sy het intussen nie weer begin menstrueer nie.
Geval 9. Sy het 'n keisersnee vir obstruktiwe kraam in Julie 1956 gehad. Voordat haar vesikovaginale fistel in Augustus 1957 herstel is, het sy nie weer gemenstrueer nie.

Geval 10. 'n Moeilike kraam in Januarie 1957 het haar met 'n vesikovaginale fistel van 1 duim in deursnit gelaat. Sy het nie weer gemenstrueer nie, en in Augustus 1957 is haar fistel met welslae herstel.

Geval 11. In November 1956 het sy 'n vesikovaginale fistel na 'n tangverlossing ontwikkel en nie weer gemenstrueer nie. Op 6 Augustus 1957 is die fistel met sukses herstel.

Geval 12. Vesikovaginale fistel ontwikkel in Mei 1957 na tangverlossing. Die pasiënt menstrueer nie weer nie en op 18 November 1957 is die fistel met sukses geopereer.

Geval 13. In Februarie 1957 ontwikkel sy 'n vesikovaginale fistel na 'n vaginale operasie wat in Mei 1957 met sukses geopereer is. Intussen menstrueer sy nie.

Geval 14. Nadat sy 2½ jaar lank 'n vesikovaginale fistel gehad het, en gedurende die tyd nooit gemenstrueer het nie, is sy op 28 Mei 1957 deur middel van 'n operasie genees van haar fistel.

Ongelukkig kon nie een van hierdie laaste 6 gevalle tot dusver opgespoor word vir opvolging nie. Ons weet dus nie hoeveel van hulle intussen weer begin menstrueer het nie.

MOONTLIKE GEVOLGTREKKINGS

Die projek is nog in sy beginstadium en dit is voorbarig om op hierdie tydstryk al gevolgtrekkings te wil maak. Tog is daar sekere gedagtes wat tog wel tentatief gestel kan word.

Lokale faktore. 'n Mens dink byvoorbeeld aan 'n meganiese obstruksie van die cervix of 'n senesium van die endometrium, maar nie by een van die gevalle kon ons een van hierdie toestande demonstreer nie. Meganiese of chemiese irritasie van die vagina en/of cervix sou miskien as 'n faktor beskou kon word, maar dan sou mens verwag dat al die gevalle aan amenoree moes ly.

Ovaria. In die een geval met amenoree waar ons die buik moes open (geval 1) het biopsie van die ovarium geen primêre ovariale patologie getoon nie.

Skildklier. Hipo- of hipertiroïdisme is nie in enige van die gevalle bewys nie.

Anterior hipofise. Die druknekrose wat die vesikovaginale fistel veroorsaak, mag terselfdertyd ook die oorsaak van 'n Sheehan se sindroom met amenoree wees. As dit egter die geval was, sou die pasiënte nie weer begin menstrueer na herstel van die fistel nie.

Hipotalamus. 'n Neuro-hormone refleks vanaf die blaas (wat nie meer rek en krimp nie, maar gedurig leeg bly), via die hipotalamus en hipofise na die ovaria en endometrium, sou miskien verdere aandag geregtig het, maar geval (1) het dit in die kiem gesmoor deur weer te begin menstrueer na oorplanting van die ureters in die colon sigmoideum in.

'n Psigologiese neuro-vegetatiewe refleks via die hipotalamus is as 'n moontlikheid oorweeg. 'n Pasiënt met 'n gedurige lekkasie van urine *per vaginam* mag begin vrees dat sy nie weer swanger sal kan raak nie en 'n psigologiese amenoree ontwikkel.

Sielkundige ontleding by die Bantoe is ongelukkig nie prakties nie, maar dit is opmerklik dat alleenlik die pasiënte

wat sterk onder die indruk gebring is dat ons hulle wil help om weer te kan swanger raak, gereeld teruggekom het vir opvolging, terwyl die ander by wie ons swangerskap glad nie genoem het nie, nie weer opgedaag het nie (Gevalle 3, 4, 9-14).

Gonadotrofiese hormone-bepaling voor die operasie sal ons baie kan help in hierdie opsig. Ongelukkig, soos alreeds voorheen verduidelik, bly dit nog tegnies moeilik om 'n 24-uur-urinemonster op die regte tydstryk te verkry.

OPSOMMING

Ten einde te probeer vasstel waarom sommige pasiënte met vesikovaginale fistels ophou om te menstrueer, is 147 gevalle wat in die Pretoriase Algemene Hospitaal opgeneem en behandel is vir fistels tussen Augustus 1953 en Oktober 1957, ontleed. Hieronder was 58 gevalle wat sonder twyfel wel gemenstrueer het na die fistel ontwikkel het, terwyl 35 gevalle skynbaar sonder enige verklaarbare rede opgehou het om te menstrueer.

Al hierdie gevalle is ontleed ten opsigte van hulle ouderdom, pariteit, menstruele geskiedenis en die oorsaak, duur en grootte van die fistels, met die behandeling en resultate daarvan.

Agt-en-twintig gevalle (14 menstruerende en 14 nie-menstruerende gevalle) is afsonderlik ondersoek met spesiale aandag aan die toestand van die vagina, die cervix en die uterus, die bloed-chemie en F.S.H.-bepalings. Die groep met amenoree is opgevolg spesiaal met die oog op hulle verdere menstruele geskiedenis.

Die projek is nog nie voltooi nie, maar moontlike gevolgtrekkings word genoem en bespreek.

SUMMARY

In order to ascertain why some patients with vesicovaginal fistulas stop menstruating, we analysed 147 cases admitted to the General Hospital, Pretoria, for treatment of fistulas between August 1953 and October 1957. Among these were 58 cases who menstruated after the development of their fistulas, while 35 cases stopped menstruating without any known reason.

These cases were all analysed with reference to their age, parity and menstrual history and the cause, duration and size of the fistulas, together with the treatment given and the results obtained.

Twenty-eight cases (14 menstruating and 14 non-menstruating) were examined separately with special reference to the condition of the vagina, the cervix and the uterus, the blood chemistry and F.S.H. estimations. The group with amenorrhoea has been followed up with a special view to their menstrual histories.

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FOURTH INTERNATIONAL CONFERENCE ON PUBLIC HEALTH EDUCATION

The Fourth International Conference on Public Health Education will take place at Düsseldorf (German Federal Republic) from 3-9 May 1959. Delegates from about 60 countries representing public health education bodies will discuss and exchange their experiences. An exhibition will be held to coincide with the conference. The conference and exhibition will endeavour to

promote the solution of health problems by the use of preventive media and methods to safeguard the health of children between the ages of 6 and 18. The Congress will discuss in particular general problems of health education, the raising of health standards, activity during leisure and sport, as well as hygienic conditions, improvements of environment and mental health.

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Suid-Afrikaanse Tydskrif vir Geneeskunde : South African Medical Journal

VAN DIE REDAKSIE : EDITORIAL

ALLERGIE BY KINDERS

As ons infeksietoestande as die mees algemene siektes beskou wat kinders betref, moet ons allergiese aandoenings seker tweede op die lys plaas. Die sukses wat egter behaal is om die eersgenoemde groep siektes te voorkom en te behandel, het die probleme wat allergie meebring op die voorgrond van die geneesheer se aandag geplaas. Die behandeling van infeksies het op 'n ander manier ook die probleem van allergie beïnvloed deurdat die gebruik van antibiotiese middels een van die belangrike oorsake van allergiese reaksies geword het.

Dit is dan geen wonder nie dat 'n toenemende aantal kinderartse hul toespits op allergiese siektes. In sommige wêrelddele het hierdie vertakking van die pediatrie al so ver ontwikkel dat die spesialis in allergie nie meer 'n seldsame individu is nie.

Die term 'allergie' is in gebruik gestel deur Von Pirquet¹ in 1906. Schloss² het in 1912 die skraaptotse vir kosse gerapporteer en Cooke in 1915 die binnehuide toetse soos aangedui deur Brown.³ Die eerste pediatriese kliniek vir allergie was oënskynlik die wat in 1918 by die Algemene Hospitaal, Massachusetts, geopen is onder O'Keef se toesig. Baie het gebeur sedert daardie tyd en vandag vind ons sulke klinieke by die meeste groot hospitale in ons eie land.

As gevolg van die hedendaagse belangstelling in hierdie probleem, en die spesiale studie daarvan, het die noodsaaklikheid om allergiese verskynsels op 'n vroeë stadium te diagnoseer steeds duideliker geword. Die nodige stappe kan dan gedoen word om die allergene te bepaal en te vermy, of om die kind daarteen te desensitiseer en sodoende die ontwikkeling van sulke lastige en soms ernstige siektes soos chroniese asma te voorkom.

Profilaktiese maatreëls in die poging om die ontwikkeling van allergiese verskynsels te voorkom, is onlangs deur verskeie outoriteite op die gebied van allergie beklemtoon bv. deur Glaser,⁴ hoewel Shannon⁵ alreeds in 1922 aanbeveel het dat waar daar 'n familiegeskiedenis van allergiese verskynsels is, hierdie voorsorgsmaatreëls begin moet word voor die kind se geboorte. Die verwagte moeder se dieet behoort 'n groot aantal *verskillende* kosse te bevat, maar betreklik min *individuele* kosse. Sulke allergene soos eier en koeimelk word veral beklemtoon. Glaser⁴ gee instruksies dat die moeder geen eier moet eet nie en nie meer as een pint melk per dag moet drink nie en dan moet die melk boonop 10 minute gekook word. Baie geneesheer sal voel dat sulke maatreëls te streng is, maar dit moet onthou word dat stappe wat gevoeligheid vir so 'n belangrike babakos soos melk kan voorkom, nie ligtelik geïgnoreer kan word nie.

Na die baba se geboorte word borsvoeding beklemtoon omdat ekseem baie meer dikwels voorkom by babas wat kunsmatige voeding ontvang as by borsgevoede babas—volgens die bevindings van Grulee en Sanford⁶ en ander.

As moedersmelk nie beskikbaar is nie, behoort die dokter 'n dieet voor te skryf wat so nie-allergenies is as moontlik. Hier weer verdien die drie algemene kosse, melk, eier en koring, ons eerste aandag en die doel is om sensitisering teenoor hierdie kossoorte te voorkom. Glaser⁴ se raad is dat sojaboontjiemelk, bv. Mulsoy, koeimelk moet vervang gedurende die eerste paar maande van die baba se lewe. Hy beklemtoon die punt dat hierdie regime heel van die begin af toegepas moet word. Hy meen dat as die baba wat potensieel allergies is selfs *een* proefvoeding van koeimelk ontvang, dit genoeg kan wees om hom 'n immunologiese onrypheid te laat toon gedurende die eerste paar maande van sy lewe wat hom sal predisponer om gevoeligheid te ontwikkel teenoor die eerste kosse wat aan hom gegee word. Die meeste dokters sal bereid wees om hierdie raad te volg as hul vermoed dat die baba allergies is vir koeimelk weens sulke verskynsels soos braking, koliek en ekseem, maar slegs entoesiastiese yweraars sal sulke betreklike drastiese stappe doen wanneer hulle handel met 'n suigeling wat slegs 'n potensieële kandidaat vir die allergiese siektes is. Sojaboontjiemelk is nie alleen heelwat duurder as koeimelk nie, maar is geneig om diarree en/of seer boudjies te veroorsaak (15% van Glaser se gevalle). Nietemin is die resultate wat Glaser rapporteer indrukwekkend. Hy het gevind dat slegs 15% van gevalle in sy eksperimentele groep allergiese siektes ontwikkel het teenoor 60% in sy kontrolegroep.

Na die eerste jaar van die baba se lewe word kosse minder belangrik as allergene terwyl stofsoorte 'n toenemende rol speel. Antistof-voorsorgsmaatreëls is 'n waardevolle stap wat alleen goeie gevolge kan hê; dit sou 'n mens altans verwag. As sulke maatreëls streng toegepas word, maak dit egter die lewe danig gekompliseerd vir die kind en die ander famielielede. Die ouers en kind self mag ook 'n soort angskompleks ontwikkel as die idee posvat dat talle stowwe wat nie maklik is om te vermy nie, nadelig mag wees. As dit nou wel duidelik blyk dat kontak met allergeniese stowwe 'n belangrike rol speel by die geval, dan is dit noodsaaklik om die presipiterende oorsake van die verskynsels te vermy of te bestry met alle erns. Somtyds sal dit weer raadsaam wees om anti-infektiewe, sielkundige of ander behandeling te beklemtoon. Die meer eenvoudige maatreëls teen stowwe kan as roetine toegepas word, bv. die gebruik van rubber-i.p.v. vere- of kapokkussings, geskikte komberse, en stofsuikers. Spesiale aandag moet gegee word aan die kind se kamer waar hy die grootste gedeelte van sy lewe deurbring.

Immunisasie teen siektes, die behandeling waarvan die toediening van serum vereis, is altyd belangrik. Dit is veral waar in die geval van die allergiese kind. Hier dink ons byvoorbeeld aan tetanus en difterie.

Die gebruik van antibiotiese middels verdien ook aandag. Behandeling wat die kind kan gevoelig maak vir een of ander antibiotikum wat later dringend nodig mag wees,

moet vermy word indien moontlik, bv. plaaslike aanwending van penisillien in die vorm van salf.

'n Netelige reeks vrae ontstaan wanneer ons dink aan spesifieke veltoetse om die sensitiviteit teenoor kosse, stowwe, bakterieë, swamme ens. te bepaal. Is dit die moeite werd en is die resultate betroubaar? Op watter ouderdom moet die toetse plaasvind? Hoeveel toetse moet gedoen word? Hoe dikwels moet die toetse herhaal word? Wat is die beste metode—skraapetegnies, punksie, en/of binne-huidse inspuiting? Daar is baie meningsverskil oor hierdie vrae. Sommige dokters, veral van die ouer skool, beskou die toetse as 'n verspilling van tyd en energie—dikwels omdat hul nie bekend is met die feite nie. Sulke entoesiasiese spesialiste in allergie soos Ratner *et al.*⁷ meen dat toetse heel vroeg in die kind se lewe moet plaasvind en veelomvattend moet wees. Hul doen sowat 350 of meer toetse.

Die aangewese weg is seker 'n middelpad tussen die twee uiterste sienswyses. Dit kan met sekerheid gesê word dat veltoetse wel van waarde is veral teenoor die stowwe wat ingeasem word en dat die meeste dokters te min aandag gee aan hierdie aspek van die stryd teen allergie. Dit is egter ook 'n feit dat toetse soms verwarrend is, en heelwat diskresie is nodig by die interpretasie daarvan. Valse positiewe en negatiewe reaksies kom taamlik dikwels voor en dit is nodig om die reaksies te korreleer met die geskiedenis. As skadelike allergene deur die toetse en geskiedenis vasgestel is, en dit is nie moontlik, of prakties om hulle te vermy nie, verdien die welbekende spesifieke behandeling deur desensitisering meer aandag as in die verlede die geval was. Goeie resultate word dikwels verkry hoewel lang en herhaaldelike reekse inspuitings gewoonlik nodig is.

Diegene wat skepties staan teenoor veltoetse en spesifieke

behandeling wat hoofsaaklik op die toetse gebaseer is, moet eers die saak in die besonder bestudeer voor hulle 'n oordeel uitspreek. Selfs die deskundiges het seker nog baie te leer wat sensitiviteitstoetse betref. Dit is bv. onlangs vasgestel dat toetse vir huisstof negatiewe resultate mag gee tensy die spesifieke stof van die geografiese omgewing gebruik word bv. kushuisstof as die pasiënt aan die kus woonagtig is (Ordman).⁸ Dit mag selfs nodig wees om die spesifieke stof van die pasiënt se nouer omgewing, d.w.s. sy huis of kamer, te gebruik om 'n betroubare resultaat te verkry (Brenneman).⁹

Hoe verwarrend die beeld ook al op die oomblik mag voorkom, werp hedendaagse navorsing steeds meer lig op die vraagstuk en daar het 'n toenemende en prysenswaardige neiging ontstaan om die kind wat potensieel allergies is te beskerm teen moontlike sensitisering, en om die kind wat alreeds simptome het, aktief te behandel i.p.v. te hoop dat hy sy siekte sal ontgroei. Diegene wat hul toespits daarop om hierdie moeilike en lastige taak te onderneem, het 'n buitengewone mate van geduld en uithoudingsvermoë nodig en verdien alle aanmoediging en ondersteuning. As die probleem so gretig aangepak word soos die geval was, en nog is met infeksies, sal die toekoms vir die allergiese individu ongetwyfeld meer rooskleurig wees en die internis sal minder rede hê om te sê dat die kinderarts of huisdokter 'n voorkombare probleem aan hom oorhandig het.

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ENDOCRINE DISTURBANCE IN MENTAL BREAKDOWN

At the Second International Congress for Psychiatry at Zurich a symposium¹ was arranged to report on the status of research into endocrine dysfunction in mental disease. From this report the interested reader will obtain the views of authorities in this important field, from which much is expected concerning the causation of mental illness. Reference is made to the view of Bleuler, that endocrine psychosis and the naturally-occurring psychoses are different entities; but this attitude is rejected.

Judging from the various papers, the current orientation appears to be as follows: All patients showing a specific illness (e.g. schizophrenia) do not necessarily have any uniform qualitative endocrine or biochemical disturbance (e.g. thyroid deficiency, nitrogen imbalance). Meaningful data can only be obtained from long-term study of the individual patient. An emergency situation produces a particular endocrine imbalance which does no more than contribute to the resulting mental disturbance. The form of the illness does not depend on the type of endocrine disturbance but on the pattern of the premorbid personality of the patient. The endocrine disturbance is thus only one of several links in the development of mental breakdown.

It is, however, important to detect this disturbance because correcting the endocrine dysfunction may be the most economical way of interrupting the causal chain of illness.

The interesting details of research reported here reflect the direction that endocrine research in psychiatry will take. If there is no demonstrable abnormality present, no endocrine therapy is indicated. But refinement in methods of assessing a patient's endocrine status can be expected in the near future. Then precise regulation will be possible for each patient instead of the current empirical hit-or-miss application of a general stressor (e.g. electro-shock). Moreover, current therapies may be a liability in certain cases with altered endocrine metabolism. It is suggested that Largactil markedly reduces ovarian function. Patients whose 17-ketosteroid levels are originally below the normal rate are reported to improve after one or two electro-convulsive treatments. Endocrine research appears to hold prognostic possibilities. Schizophrenic patients with low ketosteroid output are held to be harmed by insulin-coma therapy.

Other important clinical problems discussed at the Congress are male immaturity, cyclical behaviour change and the vexed question of the premenstrual-tension syndrome.

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HEART DISEASE IN PREGNANCY*

THOMAS J. DRY, M.A., M.B., CH.B. (CAPE TOWN), M.S. (MINN.), F.A.C.P.

Cape Town

There are relatively few cardiac conditions today which might prevent a woman from bearing children. A maternal mortality rate among women with heart disease, which was approximately 60% some 80 years ago,¹ should, under reasonably favourable circumstances, be no more than 3% today.

This reduction in the danger inherent in pregnancy and childbearing can be attributed mostly to a better understanding of the various factors which constitute the physiological load of pregnancy, improved methods of preventing and treating cardiac failure and rhythm disturbances, and the introduction of cardiac surgery for a number of congenital and acquired cardiac lesions.

A certain number of congenital anomalies of the heart and great vessels are seldom compatible with life beyond infancy and childhood, and thus they are rarely encountered in women of childbearing age. Certain other anomalous conditions are amenable to surgical correction or improvement, and these conditions should already have received corrective treatment during or even before the patients are out of their teens. Specific reference is made to the closure of a patent ductus, the excision and repair of a coarctation of the aorta, resection of the involved section of lung in pulmonary arterio-venous fistula, valvotomy for pulmonic stenosis and closure of atrial and ventricular septal defects.

The most striking acquired cardiac condition related to pregnancy is mitral stenosis. Fully 85% of heart disease encountered during pregnancy is of rheumatic origin and mitral stenosis is present in two thirds of these. The ideal time for valvotomy for mitral stenosis, (unlike the congenital conditions already referred to), is not necessarily determined by the patient's age. This means that many women with mitral stenosis reach the childbearing age before their mitral disease has progressed to the point necessitating surgical intervention. It is generally agreed that mitral commissurotomy is unwarranted when performed prophylactically before the development of symptoms. The remaining patients with rheumatic heart disease are much less favourably placed with reference to pregnancy. The surgical treatment of mitral insufficiency and of aortic stenosis and aortic insufficiency remains unsatisfactory, but time will in all probability alter this situation.

THE EVALUATION OF THE RISKS INVOLVED IN PREGNANCY

The assessment of the dangers of childbearing in the individual case centres around the evaluation of two physiologic entities, namely, the cardiac reserve (which one may look upon as credit value), and the total physiological load of pregnancy (which one may look upon as debit value).

The cardiac reserve. Cardiac reserve is a reflection of the ability to exercise without symptoms (dyspnoea). It has become customary to recognize 4 categories of patients in terms of cardiac reserve, and this is particularly applicable to mitral

stenosis: (1) Patients with the murmurs of mitral stenosis, but who are able to tolerate normal activity without dyspnoea, (2) patients who experience dyspnoea with normal activities, and in whom this limitation does not progress, (3) patients who experience dyspnoea with less than normal activities, and who show progression of symptoms, and (4) patients who experience dyspnoea without any activity.

The assessment of cardiac reserve in the individual patient should be postponed till she has received the maximum benefit of treatment. The condition of a woman may, for example, appear to be unfavourable when, in effect, she has been overworked, is anaemic, obese or hyperthyroid, or has ingested large amounts of salt. In these conditions appropriate measures may lead to a marked increase in her cardiac reserve.

When a patient, seen for the first time, is already pregnant the evaluation of the cardiac status is much more difficult than in the non-pregnant state. Under these conditions there is a tendency to err on the side of over-diagnosis of heart disease. Thus the increased blood flow of pregnancy over an only slightly roughened valve, may suggest stenosis; functional murmurs, spurious X-ray enlargement of the heart due to the higher level of the diaphragm, and minor electrocardiographic changes, might readily be interpreted as evidence of disease of greater severity than that actually existing; swelling of the ankles, dyspnoea and palpitation are commonly encountered in pregnant women with normal hearts.

The total physiological load of pregnancy. The physiological changes which occur during normal pregnancy have been accurately documented. The pulse rate increases by 10-12 beats per minute at rest and considerably more with effort than in the same woman when she is not pregnant; cardiac output increases by 40-50%; total oxygen consumption by 15-18% and the blood volume increases by 30-50%. These changes occur early in the second trimester and except for oxygen consumption, start to return towards normal during the last 2 months of gestation. The pregnant woman normally hyperventilates, and, contrary to expectation, vital capacity is actually increased during pregnancy.

To this metabolic load, which is inseparable from the pregnant state and thus to a very large extent unalterable, must be added the cardiac work necessary to maintain life, cardiac work imposed by activity, by emotional stress, by intercurrent infections, by anaemia, obesity and by sodium intake and retention, a group of factors which can individually be modified by appropriate measures. Reduction in salt intake will also diminish blood volume to some extent.

One of the important haemodynamic phenomena in regard to mitral stenosis is that any increase in cardiac rate results in a diminished flow through the mitral orifice; this in turn causes, first a rise in left atrial pressure, and second a drop in cardiac output. The rise in left atrial pressure is already augmented by increased blood volume, so that the tendency for pulmonary congestion, acute pulmonary oedema and haemoptysis increases as pregnancy advances to the eighth month of gestation.

* A paper presented at the Third Congress of the South African Society of Obstetricians and Gynaecologists, Pretoria, August 1958.

The combined effects of prescribing more rest, allaying mental stress, of treating intercurrent infections with appropriate antibiotics, of prescribing iron for anaemia, of reducing weight by dietary measures, and of limiting sodium intake, may maintain a level of cardiac reserve which will keep the patient in a state of compensation throughout pregnancy.

The critical periods are (a) from the third to the eighth month, after which the metabolic load lessens, (b) labour itself, and (c) the immediate post-partum period.

The first evidences of cardiac failure require prompt treatment, which should include bed rest, digitalization and sodium restriction, in addition to other measures already enumerated, where they are indicated. When cardiac failure remains uncontrollable in patients with mitral insufficiency or aortic disease, we must accept defeat and advise therapeutic abortion to save the mother's life. In the majority of cases in this category, cardiac failure will have occurred by the end of the first trimester. Should medical measures fail in the patient with mitral stenosis and those congenital anomalies amenable to surgery, one must choose between therapeutic abortion and surgical treatment.

The success with which women can be carried to term by conservative medical measures is attested by a number of reports. For example Burwell² reports a maternal mortality of 3 out of 298 pregnancies, a foetal and neonatal death rate of 18% and therapeutic abortion rate of about 10%; during a 6-year period however, the number of therapeutic abortions dropped to 3%. Furthermore, according to a survey made by Miller and Metcalfe³ there is no evidence that pregnancy, once completed successfully, has accelerated the course of heart disease. O'Driscoll, Barry and Drury's⁴ record, to quote another example, is equally convincing of the effectiveness of conservative treatment. In 298 pregnancies complicated by rheumatic heart disease, one mother died before the end of the puerperium, 13 viable infants did not survive the neonatal period, mitral commissurotomy was performed on only 3 occasions, no caesarean section or induction of labour was performed for heart disease, and no therapeutic abortion was performed.

SURGICAL TREATMENT

What now is the case for definitive surgical treatment during pregnancy? Most of the data concern mitral stenosis, but the same underlying principles are valid for congenital cardiac lesions for which definitive surgical treatment is possible. The only reliable answer to this question can be found in the practical experience from many medical centres. Many reports are indeed available,⁵⁻¹³ but most of the earlier reports were concerned with small numbers of patients operated on at various stages during pregnancy. The figures are impressive enough. One of the larger series is that of Kaufman and Ruble,¹⁴ who report (a) on 93 mitral commissurotomies with 3 maternal deaths: 85 babies were delivered in this group. (b) 22 patients who had closure of a patent ductus with no maternal mortality and only one miscarriage one month following surgery.

It is of interest to note that mitral valvotomy has been successfully performed at any stage of pregnancy, though it is generally agreed that surgery is preferably applied towards the end of the first trimester, when the pregnancy is more secure and the danger of producing congenital anomalies is

less. In one instance mitral valvotomy was carried out 10 hours before delivery. While one might ponder over the wisdom of such a decision, it nevertheless was successful in this case.

A striking feature among patients who had mitral valvotomy performed during pregnancy is the low morbidity and low mortality rate in the immediate post-partum period. This can be a very critical phase for the cardiac patient, and carries a maternal mortality rate of 7-10% in unoperated patients with mitral stenosis. This point alone would further strengthen the case for valvotomy and for other surgical procedures during pregnancy, where indicated. Furthermore, no one can ignore the danger of therapeutic abortion in early pregnancy, and more especially the danger of hysterotomy after the first trimester.

SUMMARY AND CONCLUSIONS

Women with organic heart disease should not lightly be denied the privilege of childbearing. If they fall in the functional categories 1 or 2 they can usually be carried to term by conservative medical management. When they fall in categories 3 and 4 this may still pertain, but will require skilled and more rigid medical care from the very early months of pregnancy. The situation in general has been eased, however, by the advent of cardiac surgery. Ideally, a woman with mitral stenosis (categories 3 and 4) should have had a valvotomy before she becomes pregnant, and in the future this will no doubt become a standard procedure. The same applies to other cardiac conditions amenable to surgery. In fact, the pregnant state can be ignored and surgical treatment carried out when the usual indications for surgical intervention present themselves. Actually, experience has shown that surgical treatment can be carried out at any stage of pregnancy, but since most haemodynamic changes of pregnancy become significant early in the second trimester, postponement is seldom warranted. Needless to say, strict medical treatment is imperative before surgical interference is entertained. Therapeutic abortion should then never be considered, except when medical measures have failed and where no other opportunity or method exists whereby amelioration of the cardiac reserve can be brought about. This is especially true since the termination of pregnancy, in itself, carries an appreciable risk. Finally the lowered maternal-mortality rate in the immediate post-partum period in women who have had a valvotomy during pregnancy, further strengthens the case for surgical intervention in preference to therapeutic abortion or undue delay in carrying out surgical treatment.

As a closing thought, however, it is worthy of note that it has been the experience in many quarters that conservative measures, based on a knowledge of the haemodynamics of pregnancy and on the improved methods of treating cardiac failure, are sometimes highly successful when for one reason or another surgical treatment cannot be resorted to.

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FUNICULAR DIRECT INGUINAL HERNIA

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The first description we have found of this hernia is that of Ogilvie (1937). He described its main features as consisting of a tubular process of peritoneum passing through a small circular defect in the posterior wall of the inguinal canal medial to the inferior epigastric vessels (Fig. 1). He described the margins of this defect in the fascia transversalis as firm, sharply defined, and almost tendinous. He pointed out that the sac often passes through the superficial inguinal ring and that the hernia may be indistinguishable on clinical examination from an indirect inguinal one. He believed that the circular opening in the fascia transversalis which is found in cases of funicular direct inguinal hernia did not represent the general weakness of this fascia which is so evident in cases of direct inguinal hernia. Gill (1939) recorded details of 3 cases of funicular direct inguinal hernia in males aged 26, 59, and 40 years. In the second of these a Richter's hernia was present, and the third was a recurrence after recent repair of an inguinal hernia. He mentioned in a footnote a similar hernia in a female. He also considered that such herniae are indistinguishable clinically from the indirect inguinal variety. Both these authors stressed the importance of searching for such a hernia during all operations for hernial repair.

Burton and Blotner (1941) used the term 'diverticular hernia' to describe small pear-shaped or sausage-shaped protrusions of peritoneum or fat through rents in the fascia transversalis. They described the margins of such rents as being sometimes clearly demarcated. They stated that such 'diverticula' are in 87% of cases offshoots of a direct inguinal hernia or the direct part of a bilocular inguinal hernia. Only rarely was the diverticulum found unassociated with direct inguinal hernia.

We believe that the term 'diverticular hernia' as defined by Burton and Blotner includes herniae of the type described by Ogilvie and Gill, though they do not refer to these authors. We consider the term 'diverticular' applied to hernia to be imprecise and misleading, because it is applicable in a sense to all herniae. Aird (1946) uses the term 'funicular direct hernia' and this is adopted in this paper because it is an accurate description of the hernia.

In spite of these papers, funicular direct hernia has received scant recognition and, although it is rare, a knowledge of its existence is important if therapeutic errors are to be avoided. We record 4 cases: case 1 operated on by Sir Heneage Ogilvie, cases 2 and 4 by one of us (P.G.L.) and case 3 by Mr. E. M. Barker.

CASE REPORTS

Case 1

A male aged 32 years was admitted to Guy's Hospital in 1949 with a clinical diagnosis of right indirect inguinal hernia, which extended into the scrotum. At operation the sac was seen to come through a well defined defect about $\frac{1}{2}$ inch in diameter in the fascia transversalis medial to the inferior epigastric vessels. The sac had passed through the superficial inguinal ring. Repair

of the defect was by approximation of its edges with a silk stitch after dissection and excision of the sac.

Case 2

An Indian male aged 32 years was admitted to King Edward VIII Hospital in 1957. In 1949 he had an operation for a left inguinal hernia but was disconcerted to find the hernia still present, and quite unaltered, on getting out of bed a few days after the operation. The second admission was for strangulation of a left indirect inguinal hernia which reduced spontaneously. Later clinical examination showed an indirect inguinal hernia, which descended into the scrotum. At operation the external oblique aponeurosis was found to be scarred but the cremaster was not, and did not appear to have been dissected previously. A hernial sac was found which extended into the scrotum within the cremaster and behind the spermatic cord. It passed through a defect in the fascia transversalis $\frac{1}{2}$ inch in diameter, lateral to the outer edge of the rectus abdominis muscle and above the level of the pubic tubercle. This defect had sharply defined and thickened edges, and the sac itself was thickened at this point. The sac was excised and ligated and the defect in the fascia transversalis was closed with braided nylon sutures. This repair was reinforced by a nylon lattice passing from the rectus sheath to the inguinal ligament and covering the whole area extending from the pubic tubercle to the deep inguinal ring.

Case 3

An Indian male aged 30 years was admitted to King Edward VIII Hospital in 1957. He had had a swelling in the right groin for 11 years. This swelling had not descended into the scrotum and a clinical diagnosis of indirect inguinal hernia was made. At operation a narrow and elongated sac was found within the cremasteric fascia behind the spermatic cord. It came through a sharply defined defect in the fascia transversalis about $\frac{1}{2}$ inch in diameter. Bladder wall was found in the medial wall of the



Fig. 1. Diagram of the right inguinal canal, as seen at operation for hernia, showing the sac of a funicular direct inguinal hernia and its relation to the fascia transversalis and inferior epigastric vessels. The diagram also shows the external oblique aponeurosis, the spermatic cord and the internal oblique muscle.

sac, which was freed, ligated, and excised. The defect in the fascia transversalis was repaired with silk sutures.

Case 4

A European woman aged 40, who had had an inguinal hernia for 2 years. The sac passed through the superficial inguinal ring and a clinical diagnosis of indirect inguinal hernia was made. At operation the sac was narrow and elongated. Its neck was at a well defined defect in the fascia transversalis, $\frac{1}{2}$ inch in diameter, with thick margins lying medial to the inferior epigastric vessels. The bladder wall lay in the medial wall of the sac, which was excised after freeing it. The defect in the fascia transversalis was repaired with catgut sutures.

DISCUSSION

The anatomical features of these 4 herniae are the same as those described by Ogilvie and Gill. Thus they are unlike the more common direct inguinal hernia, in which there is a diffuse bulge due to weakness of the fascia transversalis. In general, the ages of the patients described here are less than those with direct inguinal herniae. In all these patients, the defects in the fascia transversalis were well defined with sharp and thickened margins, and the sac was tubular. All were diagnosed clinically as indirect inguinal herniae, and strangulation had occurred in one of our cases (case 2), as in one of Gill's cases (1939). Bladder lay in the medial wall of the sac in cases 3 and 4 and in one of Gill's cases. Case 4 described here was a woman, as was one of those mentioned by Gill.

The aetiology of funicular direct hernia is obscure. All these herniae manifested themselves in adult life, which indicates that they were acquired, as there is no known embryological reason why there should be a defect in the fascia transversalis medial to the inferior epigastric vessels. We believe with Ogilvie and Gill that this type of hernia is probably acquired and that its cause differs from that of the diffuse bulge of the fascia transversalis usually seen in direct inguinal herniae. It is likely that the fascia transversalis defect is traumatic in origin and, because its margins are strong, the sac tends to be tubular and its neck small.

SOME IMPRESSIONS OF OPHTHALMIC SURGERY IN EUROPE*

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During a short visit to Europe and the United Kingdom, I had the privilege of watching some of the world's most famous eye surgeons operate.

At the Barraquer Clinic in Barcelona, a magnificently appointed private hospital run by Professor Barraquer and his son Joaquin, cataract extractions are performed under local anaesthesia and curare with heavy sedation. The curare is given in doses sufficient to relax the extraocular muscles without affecting the respiration. Most of the extractions I saw were done by phacoemulsification. A suction cup is applied to the anterior surface of the lens, which is then completely removed in its capsule. The method was pioneered by



Fig. 1. Acrylic lens in position in anterior chamber.

Treatment

The importance of this hernia lies in possible failure to recognize it at operation, which occurred in case 2 and in one of Gill's cases. Should this failure occur in the presence of a strangulated knuckle of bowel the consequences might be disastrous. With mobilization of the spermatic cord and cremaster muscle the presence of a funicular direct hernia will always be obvious. The general principles of hernial repair are followed, viz. complete excision of the sac, closure of the defect in the fascia transversalis, and reinforcement of the posterior wall of the inguinal canal where required. It is a simple matter to close the small defect by suture without tension since the fascia transversalis is not a rigid structure.

SUMMARY AND CONCLUSIONS

1. Four cases of funicular direct inguinal hernia are reported.
2. This hernia has received scanty recognition in the text-books and other literature.
3. The aetiology and anatomy are discussed.
4. The importance of its recognition at operation is stressed.
5. The operative repair is indicated.
6. Inspection of the fascia transversalis as a routine at all operations for the repair of inguinal hernia would reduce the chances of overlooking a funicular direct hernia.

We are indebted to Sir Heneage Ogilvie for permission to publish details of case 1, to Prof. A. E. Kark and Dr. S. Disler, Superintendent of King Edward VIII Hospital, of cases 2 and 3, and to Mr. L. V. Pearson of case 4.

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Professor Barraquer, who devised and perfected the instrument. As soon as the lens is removed, the previously-inserted corneal scleral suture is tied, and pilocarpine solution is injected into the anterior chamber to constrict the pupil.

At this clinic I saw a number of acrylic lenses inserted into the anterior chamber. These lenses were devised by Professor Strampelli of Rome, and fit into the anterior chamber of the eye (Figs. 1 and 2). Each lens is individually made to fit the particular eye and is of appropriate dioptric strength to render the eye emmetropic. It is inserted horizontally after a peripheral iridectomy has been made at 12 o'clock, care being taken to see that the lens does not block the iridectomy. These lenses are used (1) to replace a cataractous lens, (2) to render the eye emmetropic in high degrees of myopia or hypermetropia. The technique of insertion is relatively simple and the immediate results are good. Time alone will reveal if there are remote complications. (The Ridley type of intra-ocular lens placed behind the iris is no longer used at this clinic, and is in fact not in favour at most of the other clinics I attended.)

At the Barraquer Clinic I saw a particularly useful and simple surgical instrument. It consists of a holder which grips a piece of the cutting edge of a sterilized razor blade. A portion of this is broken off and used as a small, very sharp cutting instrument. As soon as it ceases to be razor-sharp, another piece of the razor blade is broken off for use. This instrument can be used for a

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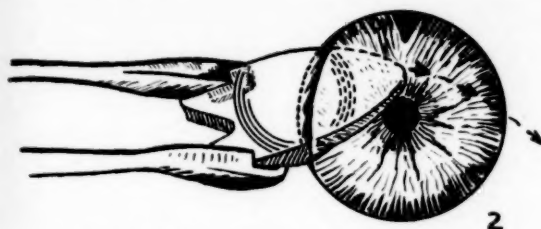


Fig. 2. Insertion of acrylic lens into anterior chamber.

variety of conditions ranging from lamellar corneal grafts to the removal of sutures. It can be improvised by using an artery forceps instead of a special holder which, however, has non-grooved blades and takes a steadier grip. This instrument should prove useful to general as well as eye surgeons, particularly for the removal of sutures.

I saw a number of corneal grafts being performed with consummate skill under the Zeiss binocular operating microscope, which assured accurate apposition of the corneal graft. Dr. Barraquer used as fixation for the graft a very fine 'virgin silk' composed of 7 cocoon threads. This was inserted as a continuous suture (Fig. 3) with a specially constructed 4 mm. needle (Grieshaber). The suture can be left in place for 15-20 days without producing irritation. At this stage sufficiently firm union has occurred to obviate any danger on their removal.

Also in Barcelona I saw Professor Arruga perform a number of intracapsular cataract extractions carried out in the patient's bed under local anaesthesia with an Arruga forceps. He inserts corneo-scleral sutures after the extraction is completed. He uses a minimum of instruments and his surgery is very accurate.

At Geneva, Professor Franceschetti demonstrated the use of the Berman locator for intra-ocular foreign bodies. In one case I

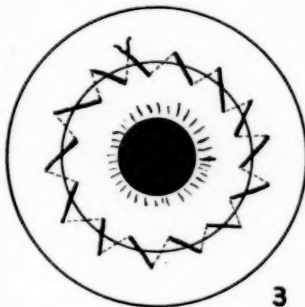


Fig. 3. Suture used in fixation of corneal graft.

saw it showed that a minute foreign body was on the inner aspect of the lid and not intraocular. This was done without the aid of X-ray localization. The instrument is a useful adjunct to X-rays for the extraction of metallic foreign bodies.

At Utrecht Professor Weve stressed the danger of excessive diathermy at one application in detachments of the retina, arising from overheating of the tissues. He showed me an interesting film of a suction irrigation syringe for dealing with soft lens matter after a discission operation. The apparatus sucks out soft lens matter at the same time as it injects saline.

At Bonn Dr. Meyer-Schwickerath demonstrated his light-coagulation therapy. This is basically a method of causing therapeutic burns of the retina to seal holes in detachments. The method was evolved as a result of observing burns caused by watching an eclipse of the sun without the necessary protective glasses. The apparatus allows the operator to view the fundus as through an ordinary ophthalmoscope. Once the hole in the retina has been located, the very intense light is switched on and a burn is caused at the site on which the light is being concentrated. The treatment is ideal for shallow detachments and is also used prophylactically to diathermize potential areas of detachments. It can only be used in shallow detachments, for the light penetrates transparent material and only generates heat when the retinal tissue is in close proximity to pigmented tissue. He has also used the method of light coagulation to treat intra-ocular neoplasms, of which he showed me an impressive number of slides made before and after treatment. I was also shown the slides of several patients in whom he had made an artificial pupil by causing a burn of the iris with light coagulation.

In Manchester I watched Mr. Duthie do an imposing list of intracapsular cataract extractions. These were most beautifully executed after a 'complete' iridectomy. The only disconcerting feature in my view about his otherwise brilliant cataract surgery is the omission of corneoscleral sutures, with its attendant post-operative dangers.

At the Westminster Branch of the Moorfields Eye Hospital, Mr. Frederick Ridley has devised and equipped a complete unit for the fitting and manufacture of plastic lenses.

At the East Grinstead plastic surgery unit Mr. Rycroft demonstrated several new instruments he has devised, including two very fine needles, specially made for the introduction of air into the anterior chamber after cataract extraction and keratoplasty. He also showed me a very delicate forceps for tying extremely fine silk sutures in corneal grafts. These he has described in the *British Journal of Ophthalmology* (41, 504).

I wish to express my thanks to Mr. Aaron Cohen for the excellent diagrams.

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ADMINISTRATIVE ASPECTS OF POLIOMYELITIS IN ISOLATION HOSPITALS*

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My intention in this paper is not to present a dissertation on the clinical aspects of poliomyelitis or on the administration of infectious disease hospitals; it is rather to indicate how the pattern of such administration has altered in South Africa during the past decade by reason of the changing incidence of poliomyelitis, the development of new and often costly techniques for its diagnosis and treatment, and the social problems that have arisen out of the alarm and dread with which the public has come to regard the disease.

Poliomyelitis now attracts the major attention of medical administration in infectious-disease hospitals. A general shift in the coordination of the hospital services has become necessary in order to cope with this new 'number one' on the infectious disease parade. More exacting demands than formerly are made on personnel for the exercise of certain human qualities; and we find as usual that the solution of one problem creates new problems.

The Changing Aspect of Poliomyelitis

The increase in poliomyelitis has been marked by wide-spread epidemics throughout the world during this last half century.

* Based on a paper presented at the South African Medical Congress, Durban, September 1957.

Previously regarded as but one of the specific infectious fevers with unfortunate complications in a certain percentage of affected patients, it now looms as a disrupting visitation affecting the community at large and resulting in sociological as well as pathological complications.

As in war, it is during epidemics that intense investigations and efforts become possible. This half century has seen the isolation of the polio virus. Diagnostic methods have been improved, the epidemiology is better understood, and special equipment for treatment of complications has been designed. The merits of chemotherapy and antibiotics have been investigated and they have been found to be good weapons with which to fight the secondary infections which were formerly fatal. The control of certain forms of bulbar paralysis by tracheotomy is a very recent milestone.

These advances, though impressive, have only served to aid diagnosis and treatment. Epidemics still sweep the world and the disease has come to attack older age-groups. The community develops a feeling of helplessness, anxiety and depression with each succeeding outbreak of the disease. The experience and feelings of the individual patient and his relatives, multiplied by the number of such family units involved, eventually become the experience, hope and feelings of the nation.

With the saving of lives which in the past would have been lost, the problem of the rehabilitation of the patient and his reabsorption into society now exercises the minds of social services.

The brightest beacon that has yet shone for suffering humanity is the poliomyelitis vaccine now available for the immunization of communities. Much is expected from this vaccine and the expectation is proportional to the alarm and anxiety with which the community has come to regard poliomyelitis and its complications.

The Changing Aspects of Administration

The onset, diagnosis, course, treatment and prognosis of a disease sets the pattern for administration measures in dealing with it. Poliomyelitis being an infectious disease, one additional administrative requirement is compliance with the provisions of the Public Health Act as regards isolation and prevention of spread. The medical administrative measures previously employed have been changed as the result of:

(a) The recognition of the dangers to the patient in the pre-paralytic stage of the illness, which has its effects on the procedure of admission of the patient to the hospital.

(b) The newer concepts of treatment, which have to be implemented in the hospital.

(c) The growing dread of poliomyelitis in the community and its effect on public relations.

ADMISSION OF POLIOMYELITIS PATIENTS TO ISOLATION HOSPITALS

1. Public Health Aspect

The Public Health Act declares poliomyelitis a notifiable disease and requires the isolation of the patient to prevent the spread of infection. The period for such isolation is at present laid down as 21 days from the onset of the illness. In most cases isolation is more effectively achieved in isolation hospitals; moreover, in view of the specialized nursing and treatment that are necessary, admission to isolation hospitals is now as much in the patient's own interests as in those of the public health. The onset of complications in poliomyelitis takes place in the early pre-paralytic phase of the illness and therefore the sooner the patient is admitted to hospital for skilled observation the better. The medical practitioner requesting admission does so, not on proven diagnosis, but when he suspects that the patient may be suffering from poliomyelitis. This procedure is speeded up in times of epidemic. The isolation hospital now serves an additional purpose, in that patients are admitted for diagnosis as well as for isolation. The patient is admitted first on suspicion, and then investigation and diagnosis proceed in the prepared environment of the hospital.

2. Transporting the Patient

Fatiguing the patient in the pre-paralytic stage of the illness may result in complications, and therefore the most rapid and least exhausting means must be provided for transporting the patient from the locality of diagnosis to the hospital by private car, ambulance or aircraft. The onus of deciding when the patient must move rests on the medical attendant and not on the receiving hospital, and it is desirable that the doctor, at the time of his request for admission, should give the hospital the benefit of his knowledge and views about the case.

3. Hospital Arrangements Pending Admission of Patient

In poliomyelitis complications may supervene with extreme rapidity, and the hospital must look upon every such admission as a potential emergency, even if the doctor when requesting admission did not consider the case serious. The further the patient has to travel before admission, the greater is the fatigue and therefore the more likely are emergency complications.

Resuscitative equipment and staff to operate it should therefore be available for patients during transportation over distances to the hospital. Equipment has been designed for this purpose. Personnel at the hospital must be in a constant state of readiness to act immediately in emergency on arrival of the patient. Resuscitative equipment must be available at the point of arrival as well as in the rooms where it would normally be used in the hospital.

Workshop personnel responsible for the maintenance of equipment form part of this emergency arrangement. An overseer must be personally responsible for seeing that all mechanical and electrical equipment is frequently and regularly tested, and

not only when impending breakdown is noticed. Reserve equipment and emergency electrical power plants should also be regularly serviced and inspected, whether use has been made of them or not. The responsibility of the hospital fitter and electrician has increased tremendously under these changing administrative circumstances. On the conscientiousness and willingness with which their duties are carried out in normal hours of duty, or after hours at short notice, largely depends the life of every patient who is in a mechanical respirator; no other personnel can perform their duties. If equipment fails during use it has to be repaired in the shortest possible time and with the shortest possible interruption of effective working.

4. Admitting the Patient

The actual admission procedure aims at the delivery of the patient into allotted accommodation with the least possible delay and with the greatest regard for his safety. Office procedures of admission are only dealt with after the first medical examination and investigation have been conducted in the ward. The admitting office will have had advance notice of the request for admission and skeleton admission papers are prepared at that moment.

Transport bringing the patient proceeds direct to the reception area, which should be situated as close as possible to the infectious diseases wards. A suitable ambulance bay with access for trolleys to inter-ward corridors should be provided, in which the vehicle can draw up under sheltered, secluded and well lighted condition to discharge its passenger. A medical officer should be immediately available to examine the patient inside the ambulance and to make a rapid assessment of his condition. He is then taken by trolley from the ambulance to the particular accommodation where the medical officer decides he should be isolated. It is there that a more detailed clinical examination is performed by the medical officer and material for laboratory examination taken. The speed with which the diagnosis is confirmed is of importance to the patient and to the local health authorities. Should the poliomyelitis patient show respiratory embarrassment, resuscitative equipment is at hand for use during his journey to the respiratory unit, where specialized equipment is used.

In this way the ambulance serves as a mobile out-patient department and reception centre, and is disinfected on return to its base. The hospital can thus dispense with reception cubicles, and the risks of cross-infection between waiting patients are reduced to the absolute minimum.

Experienced medical officers are required to receive the patient on admission. Sufficient experience of the diagnosis of other infectious diseases is necessary to prevent the admission of, say, a patient with measles into a poliomyelitis ward. For this reason medical interns and recently-qualified personnel have a very limited value in this kind of hospital.

ISOLATION, ACCOMMODATION AND TECHNIQUE

The objective of the isolation hospital is to isolate the patient from contact with other patients and members of the general public (including parents and relatives) and so prevent the spread of infection.

It is now generally accepted that the poliomyelitis virus is excreted in the stools and may also be conveyed by droplet infection, and that the disease is spread by direct contact with the patient. The infection is conveyed by the hands and clothes and by articles handled by the patient. As regards air-borne infection, isolating these patients in separate fully-enclosed cubicles, each with its own window and door, has proved effective in the control of cross-infection, even to the extent that other infectious diseases (except measles and chicken-pox) may be accommodated in the same ward provided they are in their individual cubicles.

The employment of full nursing asepsis and the provision of each cubicle with its own set of equipment for clinical examination and for nursing extends the safety measures against cross-infection. Every individual entering the cubicle must wear a gown before touching the patient or anything in the cubicle. On leaving the cubicle the gown is to be taken off and the hands thoroughly washed with a good antiseptic and soap and water, which is provided in each cubicle. In moving from cubicle to cubicle this procedure must be meticulously observed both on entering and leaving. Resident doctors, nursing staff, domestic and visiting staff and ancillary medical personnel are all equally required to

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carry out this aseptic technique. The biggest problem is to impress upon new members of the staff and student nurses that this simple procedure holds the key to cross-infection and must be faithfully observed. Nursing staff and other personnel are absolutely forbidden to eat any foodstuffs whilst on duty in the poliomyelitis ward.

Poliomyelitis patients may be moved to an open ward reserved for this disease only, when the cubicle accommodation is short, and when the acute phase of the illness is over and the risks of dangerous complications, in the opinion of the visiting physician, have passed. Observation of these patients still continues in the open ward and isolation technique is still carried out. Enclosed cubicle space should be reserved for the observation of newly-admitted patients.

The cubicked ward is in the most constant use throughout the year and the staff of this ward is therefore the most experienced in the techniques and observational skills required. The ward is also available for the training of new personnel. Full isolation precautions must of course also be taken in the respiratory unit, where patients requiring respiratory assistance are accommodated. Nursing staff from wards other than poliomyelitis wards may be called upon in emergency to assist in the respiratory unit. Isolation technique and nursing asepsis makes this possible without creating cross-infection.

Visitors for the Patient

Parents and close relatives of poliomyelitis patients are understandably very anxious and, if permitted, would probably like to sit with the patient all day. Rules for visiting in any hospital are made for the benefit of the patient as well as for the nursing and medical staff, but visiting of infectious-disease patients is not permissible in the normal way because visitors become direct contacts of the disease and may spread the infection. Rules forbidding visiting must, however, be flexible to meet certain special situations. It is wise to allow visiting when a patient is in the iron lung, even during the period of isolation. Full aseptic nursing technique must, however, be carried out by the visitor. Such permission is best confined to the parents or close relatives of the patient. Other classes of visitors should not be permitted to visit except from the safe distance of an intervening ward verandah. It is best for these verandahs to be enclosed so as to prevent visitors from surreptitiously stealing up to a window for a quick touch or some other expression of affection or greeting. In general, it is found that the visiting public cooperate after some initial tactful explanation. Occasionally there is no co-operation, but an explanation that the local health authorities may take action under the Public Health Act against the visitor is usually sufficient to ensure compliance. Other special visitors permitted include ministers of religion and business associates requiring urgent signature of papers by the patient. Fortunately these visiting restrictions are only applicable during the first 3 weeks of the illness.

A final safeguard requires that any member of the nursing staff living outside the hospital must either change into her own clothes before leaving the hospital, or must be issued with a clean uniform at the end of her duty shift, in which she then goes home and in which she reports for duty the next day.

SPECIAL EQUIPMENT USED IN TREATMENT

The mainstay in artificial or assisted respiration equipment is still the cabinet respirator, commonly known as the iron lung. The lungs in use today are the result of successive improvements designed for more accurate control of the patient's breathing and for better access to the patient for nursing or medical procedures. More recently, intermittent positive-negative pressure apparatus has been introduced which, along with newer laboratory techniques, enables the patient's respiratory requirements and blood chemistry to be controlled within very precise limits.

Administratively this problem is reflected in the decision that has to be taken on what type and quantity of equipment is to be available for use, and for a reserve. Poliomyelitis is an unpredictable disease and it cannot be estimated with any reasonable measure of accuracy how many patients in any given time will develop respiratory insufficiency and require the assistance of resuscitative equipment. What may be regarded as a satisfactory amount of equipment in reserve in the morning may, as a result of a few new emergencies admitted on one day, be hopelessly inadequate in the afternoon. It is a dreadful feeling to have all

your iron lungs occupied while you are expecting a bad-risk patient to be admitted. It is extremely difficult to obtain equipment under conditions of emergency. It may have to be borrowed from other institutions for the time being. An added difficulty in administrative forecasting is the increased staff required to operate the equipment.

Whilst the quantity of equipment needed cannot be accurately estimated, the selection of equipment lies within administrative control, and may offset the relative shortage of equipment to a certain extent.

Selection of Equipment

Selection calls for close consultation and collaboration between the physician in charge and the hospital administrator. The clinician knows what type of equipment he wants, but the quantity must be estimated by the administrator. The clinician is guided by what function the equipment is to perform in the treatment of his patients, the administrator by what the cost of the equipment is, how many patients may need it, how many staff would have to be provided extra to operate the equipment, and the facility with which such equipment can be maintained and repaired.

The selection of an iron lung is guided in the main by the speed and efficiency by which nursing procedures can be carried out, especially that of putting the patient in the lung and starting its operation. Nursing a patient in the iron lung requires a special technique and it may be necessary to continue it for months or years. Nursing procedures must be carried out without disturbing the patient's respiration. The more ill the patient, the more dangerous it is to stop the iron lung temporarily and the more complicated and frequent are the nurse's tasks. The facility with which nursing procedures can be effectively carried out with a minimum disturbance to the patient should therefore be one of the most important considerations in selecting a respirator. Further considerations are the number of nurses that will be required to carry out routine procedures with any particular make of respirator and the readiness with which nurses can be trained to do so. This information is necessary in order to determine how many 'lungs' a fixed number of staff can operate in an emergency; for the nursing complement stays fixed while the number of patients increases. The fewer nurses required to man one lung, the more lungs can be put into use.

The availability of spares and replacements and the speed of routine servicing, as well as the ability of the hospital workshop to deal urgently with mechanical emergencies, are further points to bear in mind in selecting an iron lung.

MEDICAL AND NURSING PERSONNEL

The staff normally required to manage the isolation and treatment of poliomyelitis is as follows:

(a) Full-time Visiting Physician

This physician should be in charge of the infectious diseases unit or hospital. He should be primarily responsible for the treatment and investigation of the patients and he should co-ordinate all medical opinion and skills available. Nowhere else is the same opportunity available for studying the acute phase of poliomyelitis as in the infectious disease hospital, and it is clear that the full-time physician-in-charge is in the best position to supervise the case and treatment of the polio cases. This implies that the visiting physician should be of senior status and in good standing with his colleagues and that he should have a wide experience in the management of poliomyelitis.

(b) Specialists

In the course of treatment the physician may require specialist cooperation in connection with a particular complication and he should call in specialists as required. Specialists now employed in the treatment of poliomyelitis include anaesthetist, ear, nose and throat surgeon, orthopaedic surgeon, physician, physical medicine specialist, and such other specialties as would be indicated in particular complications.

(c) Resident Medical Officers

The resident medical officers, who serve under the visiting physician, constitute a most important unit in the treatment of poliomyelitis. They are in most continuous contact with the patients and on them falls the greater burden of observation and treatment. Careful observation and evaluation of symptoms of

impending paralysis of breathing or swallowing is most important and frequent visits to the patient and a close liaison with the nursing staff is essential. The resident medical officer must be immediately available when called to see a patient, and on his availability the patient's life often depends. He also acts in the absence of the visiting physician, and must be able to make decisions of an urgent nature on the spot, and institute life-saving measures. He must be able to operate effectively any of the modern equipment, and in emergency he must undertake procedures that normally are the specialist's responsibility; e.g. tracheotomy, laryngoscopy, bronchoscopy and procedures in the anaesthetist's field. He must know enough of the mechanics of the equipment to rectify remediable faults in emergency. In the absence of the visiting physician he must make use of opportunities to instruct the nursing staff in the observation of the patient and the supervision of equipment in use, since it will be the nursing staff who will take over his functions in his absence. Finally, the resident medical officer is to be regarded as the administrator's deputy in the admission of patients, consultations with doctors and the discussion of the progress of patients with anxious relatives when they call at the hospital or are accommodated there during a critical phase of the patient's illness. Consider the strain on this officer, especially during an epidemic. His heavy responsibilities demand both professional and personal qualifications. He must possess experience in the diagnosis and treatment of infectious diseases (of which poliomyelitis is but one). This can only be obtained in an infectious-disease hospital, and the number of medical practitioners confining themselves to this field of practice is small. The personal qualities required are those which are found in a general practitioner who commands the respect, affection and trust of his patients. In an infectious diseases hospital, and especially in the treatment of poliomyelitis, they are developed by daily contact with the patient and his relatives under the stress of continuous anxiety, fear and emergency. Such qualities cannot be created artificially but, if they are present, they can be developed by usage and encouragement.

(d) Nursing Staff

The nurses of course play an indispensable part in the treatment of the patient. The nursing staff shares with the medical officer the responsibilities of continuous observation of the patient, and it is on the conscientious attention to all the minutiae of nursing observation that the medical officer depends to a large extent for the assessment of the patient's condition. In contrast to the medical officer's intermittent attention to the patients in any one ward the nursing staff are tied to their posts for the full spell of their hours on duty. The number of nurses required is in direct proportion to the number of patients admitted. Circumstances of course arise in which a number of nurses and the resident medical officer are engaged continuously in the treatment and observation of one patient only. The limiting factors in a poliomyelitis epidemic are therefore the numbers of nursing staff in the first place and of resident medical officers in the second.

The patient in the iron lung is completely dependent upon nursing technique for his day-to-day existence. This imposes a great strain on the nursing staff and is a most important point in arranging for reliefs, off-duties and days-off for the nursing staff and the providing of adequate relaxation. That the strain is mental as well as physical must be borne in mind in dealing with matters of staff discipline.

The patient is dependent on the staff for every ministration, from the drinking of water through a straw, feeding by spoon and scratching his nose, to wiping the sweat from his brow. Only the patient's head lies outside the respirator and if a fly settles on his face he cannot wave it away. In addition he is dependent for every natural bodily function on the assistance of the nursing staff. He is also washed, dried and rubbed and has his linen changed in the lung as often as necessary. The difficulty is that all these nursing procedures must be done without such interruption of the patient's respiration as would cause his condition to deteriorate. Under certain circumstances patients cannot afford stoppage of respiration for more than a minute, and it follows that any nursing procedure that requires stoppage of the lung must be executed within the safety of that one minute. It is for this reason that the choice of type of iron lung is so important; it must enable the nursing staff to perform their duties with as little interruption as possible to the respiratory function of the apparatus. Team work becomes an absolute necessity. Every

nurse must know exactly what she is to do and the timing becomes most important. These procedures, and unremitting attention to detail on the part of the nurses, often go on for days and weeks, less often for months, and occasionally for years.

The availability of members of nursing staff becomes an important administrative problem during times of increased incidence of poliomyelitis, and more so if there is an increase in the percentage of patients developing dangerous complications. Isolation hospitals that exist as self-contained units will find that during times of epidemic their nursing staff is inadequate in number, and appeals will have to be made for assistance. Similarly, a single medical officer, normally sufficient to attend to the common infectious diseases admitted, will be worked off his feet and will collapse from physical and mental exhaustion. Reliefs will be required for both these categories of staff. An advantage of making isolation hospitals units of a larger hospital is that staff can be transferred from other hospital departments to the isolation section, and work done in the departments so depleted may temporarily be suspended.

If such rearrangement of staff is not sufficient then assistance will have to be sought outside hospital through voluntary organizations for assistant nurses, and through the Medical Association for medical assistance. All safeguards must be taken to prevent conveyance of infection, and this will naturally add to the responsibilities of the regular staff.

PUBLIC AND STAFF-PATIENT RELATIONS

The work of the hospital is done under the stress of continuous anxiety, fear and emergency. Under these circumstances the patient, especially the patient in an iron lung, dependent on the nursing staff for every ministration to his wants, and on the medical officer for hope and encouragement, forms very close bonds with them. Sharing the bleak days and the moments of despair with the patient and his relatives, the staff require qualities that amount to dedication. In very few illnesses does one get so close to the patient and to the parents and relatives in their great anxiety as one does in poliomyelitis. The staff eventually share every thought of the patient and can anticipate his every wish.

Since poliomyelitis is such an unpredictable disease, keeping up the morale of the patient and the relatives is a very responsible task. The prognosis is based on statistical evidence when it comes to discuss the future. It is known that $x\%$ of patients survive the illness without complication, and $y\%$ develop temporary complications and $z\%$ permanent or fatal complications. Such knowledge is retrospective. In the individual case under treatment no such forecast can confidently or ethically be given. Within the limits of clinical acumen a prognosis can be given, but even today with all the advances that have been made this prognosis always carries a reservation that the disease is unpredictable during the acute phase. A patient who appears to be in no danger the one moment may be fighting for his life in a quarter of an hour.

The patient and the relatives expect a clear 'yes' or 'no' and demand to be told the facts. In their anxiety to obtain information they approach every member of the staff and press for more convincing information. They read widely about poliomyelitis and gain ideas about the treatment and precautions. The reserve with which it is alone possible to give a prognosis may, in these circumstances, be interpreted as the withholding of information or as due to a lack of knowledge of the disease. The guarded prognosis is thus accepted with mixed feelings. Medical and nursing staff who are so approached therefore have a heavy responsibility to the patient and the relatives. It is unwise to let this responsibility rest on anybody but the visiting physician, the resident medical officer and the trained staff of a ward. Only through these channels should the clinician's daily view be communicated. The resident medical officer on occasion has to revise that view in the light of events and thus the responsibility may weigh heavily on him as well.

The visiting physician and the resident medical officer should be available during certain hours in the morning after a round to see relatives of patients. At these interviews an authoritative opinion can be given on any given case. Such an interview is the one best calculated to give relatives the truest picture of the situation and is the time to express a prognosis.

Special difficulty often arises from the resentment of patients who are admitted to isolation and who feel that they had no choice in the matter. Such a patient, if he is not seriously ill, feels

the deprivation that he may must have satisfied with resentment do not apply condition follow for this handling staff. Police, life, and th in which th

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* Voors wete van

the deprivation of liberties more than other patients. The fact that he may not receive visitors in the normal way and that he must have no contact with other patients makes him very dissatisfied with his stay in hospital. The relatives often share this resentment and especially is this so when methods of treatment do not appear to be as active as they expected. The mental condition following on the toxæmia of the illness is often responsible for this resentment and depression, and great tact and careful handling are required on the part of the medical officers and nursing staff. Poliomyelitis patients in isolation come from all walks of life, and they differ greatly in the way they accept the situation in which they find themselves.

The Hospital Bulletin

For the convenience of the enquiring public, hospitals provide bulletins on which every patient's condition is briefly reported in language that a layman can communicate to the enquirer. Bulletin information, that the patient is progressing satisfactorily, does not always give the public what they want; information given personally by the medical officer or sister is more readily accepted. This dissatisfaction with bulletin information is still more evident when the patients are suffering from poliomyelitis. Persons enquiring insist on being put through to the ward sister or the medical officer, or they wish to speak to the visiting physician personally. The medical officers are asked for by name and a personal call then goes through to him. Four and five calls a day are quite common concerning each patient. The situation is reached where the medical officer, with 30 or 40 polio patients under his control, would be called on to deal possibly with 150 telephone calls of two or three minutes duration each. Obviously he cannot take them all personally and a goodly proportion go through to the sister in charge. The rank and file of nurses are not permitted to give information, since it may vary from the physician's report and give rise to misconceptions.

Whilst supplying information to the public is an important function, it is more important that trained staff should not sit in the duty room to answer telephone calls about patients, especially if they are progressing favourably. For this reason a bulletin

is issued which is designed to reduce to a minimum the number of calls to the ward and medical officer. Cases that are progressing favourably are so stated, and patients giving cause for anxiety are reported on the bulletin under a heading which enables the caller to be put through to the ward so that the patient's condition can be discussed. It is necessary to limit calls of this nature to the immediate relatives. Friends must accept the bulletin information; should they wish for further details they must get them from the patient's family. The public anxiety is only too clearly understood, but it is not in the interests of the patient to be left whilst a report concerning him is being given over the telephone.

In times of public alarm the press also act as a gatherer of information for public guidance. It is felt that information emanating from the hospital is best channelled through the local health department. Hospital information concerning patients is of a personal and confidential nature and is therefore only available to such quarters as are naturally or officially entitled to the information.

REHABILITATION

As this phase of treatment falls outside the isolation period, it will suffice to mention that some unfortunate patients recover very slowly, or not at all, from respiratory paralysis. Such a patient then utilizes an iron lung or other apparatus for years. It becomes almost his personal possession, and additional equipment has to be acquired by the hospital.

Rehabilitation requires patience and encouragement and it is felt that the confidence established and the cooperation obtained during the anxious days of the acute illness should be available in the period of rehabilitation. It is my view that rehabilitation should therefore proceed in the hospital of which the isolation unit forms a part. This also serves to increase the opportunity to train nursing staff and medical personnel, and thus increase the potential of the hospital to deal more effectively with staff problems arising during periods of emergency.

I wish to express my thanks to the Director of Provincial Medical and Health Services, Natal, for permission to present this paper to Congress.

NAGRAADSE STUDIE VIR DIE ALGEMENE PRAKTISYN*

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As 'n algemene praktisyn 10 of meer jare lank gepraktiseer het, kry hy tyd om terug te sit en 'n bietjie na te dink oor die dinge wat hy alreeds as geneesheer gedoen het en die dinge wat hy graag in die toekoms sal wil doen.

Op hierdie stadium is sy eerste vuur al 'n bietjie gedemp en kan hy besadig sit en dink, nie net oor die materiële vooruitgang wat hy gemaak het nie, maar ook oor sy wetenskaplike vooruitgang. Hy het gekom by die stadium waar hy besef dat hy nie wonderlik is nie; dat hy nie die lewe kan gee nie, maar dat hy net 'n instrument is om die lewe in sekere gevalle te verleng.

Hy dink aan sy onnoselheid in die begin, aan sy onsekerheid en sy senuweeagtigheid, en in baie gevalle aan sy gevoel van hulpeloosheid. Maar, dank die Vader, as hy enige verstand gehad het, het hy nou ook tyd om te dink aan al sy vordering op die wetenskaplike gebied van sy nering. Hy kan dink aan al die longontstekings, blindedermoperasies en dergelyke toestande wat by die algemene praktisyn kom. Hy besef die waarde van onskatbare ondervinding wat hy opgedoen het.

Maar as hy nou aan die toekoms begin dink, dan staan sy gedagtes stil. Hy word terdê bewus van die feit dat al praktiseer hy nog 10 of 20 jaar, hy nie longontsteking beter sal kan diagnoseer nie en hy nie blindederm beter sal kan uithaal nie. Hy besef dat as hy op hierdie stadium nog nie 'n galblaas kan uithaal nie, dan sal hy in die toekoms nooit een kan uithaal nie. Hy besef dat selfvertroue, ondervinding en 'common sense' nie genoeg is om hom verder te help nie. Die weg wat vir hom oopstaan is nou een van twee—of hy gaan voort soos hy die vorige paar jaar gedoen het of hy probeer om die nodige opleiding te kry.

As die algemene praktisyn nou besluit om verdere opleiding

te probeer kry, begin hy verneem na moontlike opleidingsentra vir algemene praktisyns. Na vele maande kom hy tot die ont-nugtering dat daar nie 'n enkele opleidingsentrum is waarheen 'n algemene praktisyn kan gaan waar hy in 'n betreklike beperkte tyd ondervinding kan opdoen van al die vertakkinge van die algemene praktisyn.

Laat ons 'n bietjie stilstaan by die fasiliteite wat vir algemene praktisyns geskep is: Daar is 4 Blanke opleidingskole waarvan 2 twee maal per jaar 'n opknappingskursus van een week hou. Dan is daar jaarliks 'n kursus vir distriksgeneesheer. Maar as mens hierdie kursusse op die keper beskou, dan begin jy sterk twyfel of dit werklik van waarde is. Is die kursusse nie eintlik sosiale byeenkomste nie—geleenthede om weer ou vriende raak te loop nie? Bied hulle nie net 'n goeie ekskuus om jou praktisyn vir 'n week te laat staan nie?

Wat kan 'n algemene praktisyn nou in 'n week leer wat hy nie alreeds ken nie? Hy kan sekerlik geen bykomstige snykunde of verloskunde in een week leer nie.

Dit het nou tyd geword dat ons hierdie belangrike saak aanpak en probeer verbeter. Ek is oortuig daarvan dat die goeie algemene praktisyn in sy breë kennis van die mediese wetenskap net so goed, of selfs beter, is as die spesialis in sy beperkte vertakking. Maar, om 'n goeie algemene praktisyn te wees is die 6 jaar van opleiding en die 1 jaar van verpligte hospitaalondervinding nie genoeg nie. Ons het nagraadse studie nodig—nie net in een of twee vertakkinge van die mediese wetenskap nie, maar in al die vertakkinge.

As ons nie aandag aan hierdie saak gee nie, kan die dag aanbreek wanneer ons net die houthakkers en die waterdraers van die spesialiste gaan word. Ons sou ons dan kon vergelyk met 'n eerstehulpstasie op die slagveld.

* Voorsittersrede geleverd voor die Jaarvergadering van die Afdeling Noordweste van die Tak Wes-Kaapland, Desember 1958.

'n Tyd gelede is daar op 'n openbare funksie 'n pleidooi gelever dat die Provinsiale Administrasie minder geld moet spandeer aan plattelandse hospitale en liever daardie geld moet gebruik om groot hospitale in die groot sentra op te rig. So 'n stelling het baie implikasies, maar een is die verbloemde bewering dat algemene praktisyns nie bekwaam is om die fasiliteite te benut wat 'n hospitaal ons bied nie.

Selfs die Administrasie het die opvatting dat dit nutteloos is om sekere geriewe, bv. X-strale, vir die plattelandse hospitale te gee, omdat die praktisyns nie genoeg ondervinding het om goeie gebruik daarvan te maak nie.

Nou wil ek met bogenoemde stellings gedeeltelik saamstem. Ons het nie altyd die nodige ondervinding nie, maar gee ons dan die fasiliteite om die nodige ondervinding op te doen.

Soos ek reeds gesê het, bestaan daar nie vir ons die plekke om verdere studie op te doen nie. Die opleidingshospitale laat toekomstige spesialiste toe as registrateurs. Hierdie mense bly 2 of 3 jaar daar net in een departement. Al kom hierdie mense ook uiteindelik in die algemene praktyk, is hulle waarde beperk, want hul het ondervinding net in een vertakking van die werk.

Na my mening is die doeltreffendste manier om ondervinding op te doen om een maand in elk van die groot afdelings te werk

en korter in die spesiale afdelings, bv. die afdelings vir oor-, neus- en keelsiektes, kindersiektes ens.

Op die oomblik het Groote Schuur-Hospitaal 65 registrateurs waarvan die meeste 2 jaar of meer in een afdeling werk. Nou is my idee die volgende:

Stel 25 van daardie registrateursposte beskikbaar aan algemene praktisyns. Laat hierdie praktisyns dan maandeliks roteer sodat hulle aan die einde van 11 maande in al die afdelings gewerk het. Alleenlik dan kan werklike goeie ondervinding opgedoen word. As hierdie patroon gevolg word, kan daar in 10 jaar 250 algemene praktisyns ondervinding opdoen. Sluit die ander universiteite in by hierdie skema, en ons kan die aantal algemene praktisyns wat so gehelp word opskuif na 750. Daar sal nog altyd genoeg fasiliteite vir die toekomstige spesialiste oorbly.

Ek dink dat dit tyd geword het dat ons om hierdie, of soortgelyke doelstellings, begin agiteer. Die algemene praktisyn het nog altyd 'n baie goeie naam gehad, maar die tyd is verby dat ondervinding genoeg was om 'n goeie dokter te maak. Met die hedendaagse vinnige ontwikkeling van die mediese wetenskap is nagraadse studie noodsaaklik. Hoe gouer ons dit kan kry, hoe beter sal dit vir ons wees.

QUESTIONS ANSWERED : ANTWOORDE OP VRAE

MANAGEMENT IN CASES OF RAPE

Q.—Suppose a general practitioner is called upon to deal with a case of rape in (a) a child, (b) a young girl and (c) a married woman and it is expected of him to treat these cases in full—how should he set about it?

How should he view his medical obligations against the background of the emotional, moral, psychological, social, legal and racial implications and consequences?

What attitude should he take up in regard to preventing conception or dealing with it when it has occurred?

A.—Rape is a very serious crime and in order to render the investigation of this crime easier and make the chances of apprehending the criminal greater, the sooner it is officially reported to the Police the better.

If a private medical practitioner is called upon to attend a female patient who has been recently raped and in whose case no report has as yet been made to the Police, he should advise the woman, or when a minor has been involved the parents or the guardians, of the desirability of reporting the matter with the minimum of delay and he should give his patient all the assistance that may be required in making this report. In particular he should be most careful not to destroy important evidence by premature treatment, e.g. douching the vagina and so removing any seminal fluid which would normally constitute strong evidence of recent intercourse.

The Police, on receipt of the complaint, will usually request the district surgeon to examine the complainant for evidence of the crime. The medical practitioner should assist the district surgeon in every way in this investigation and afterwards should take over the medical treatment of the case.

The question of how the private medical practitioner should view his medical obligations against the background of the emotional, moral, psychological, social, legal, and racial implications and consequences is a general question and not easy to answer. Broadly, no matter what the race or social standing of the complainant, the practitioner owes a duty firstly to the patient, to treat her as her medical condition requires, and secondly to the State to ensure that the investigation of the crime and the administration of justice is facilitated.

There would appear to be little that the doctor can do to prevent conception following upon the crime. When seminal fluid is deposited by intercourse around the cervix, spermatozoa may rapidly enter the uterine cavity and, if ovulation has recently occurred, conception may follow. Though it may be easy to remove spermatozoa from the vagina by douching with suitable spermaticidal agents, it is not practical to remove any spermatozoa which have entered the uterine cavity. The best the practitioner can do under the circumstances is to watch the patient and to carry out biological tests at the appropriate time, e.g. Zwarenstein frog test for pregnancy. If pregnancy is found to have taken place, the question of a therapeutic abortion may be considered.

According to the common law of South Africa it is justifiable for a medical practitioner to perform a therapeutic abortion only to preserve the life of the mother if it is threatened by the pregnancy. As a pregnancy following rape may constitute no immediate threat to the woman's life, it would appear that in such a case abortion would be illegal in South Africa. It is of interest to note, however, that in 1938, Dr. Bourne, a gynaecologist in England, was prosecuted for procuring an abortion in a girl aged 14, who had become pregnant as the result of a brutal rape. Dr. Bourne claimed that he had procured the abortion to preserve the health of the girl but not her life, which was not in danger. The learned judge ruled that a clear distinction could not be made between the preservation of health and the preservation of life as life depended on health. In consequence of this argument the accused was found not guilty. This judgment appears to have strained the meaning of the law and it has been severely criticized. Moreover, it is a judgment of a foreign court and it is extremely doubtful whether South African courts would be influenced by it to the extent of returning a verdict of not guilty on these grounds. It should, however, be borne in mind that if an abortion was carried out on a woman who had become pregnant as a result of a rape, it is doubtful whether the matter in the first instance would come to the knowledge of the Police and, no doubt, if it did, the Attorney-General, under the circumstances, would be reluctant to prosecute. If the case did come to court, it is very doubtful whether a jury would convict or, if the accused was found guilty, that more than a nominal sentence would be passed by the judge.

THE OPEN PANEL POLICY

Dr. L. M. Marchand, Associate Secretary, M.A.S.A., writes: Medical services to members of benefit societies and the question of 'closed' or 'open' panels has been the subject of much discussion in the Association. Although 'free choice of doctor' has always been an accepted principle, Federal Council only passed a resolution on this matter in 1956. Difficulties arose in certain

instances with the implementation of the 'open panel' policy adopted by Federal Council, so that consideration had to be given to circumstances which would require exceptions to be made in the application of the stated policy. For this reason Council drew up a memorandum for the guidance of Branches, as set out below. This memorandum is published for the information of

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members of the Association so that those interested in this form of practice should be aware of the official attitude of the Association.

In order to make the position quite clear the term 'open panel' is used for the system whereby any medical practitioner may participate in the service and the members of the benefit society may place their names on the list of the doctor of their choice. In a 'closed panel' system a particular doctor is appointed to provide services to all the members of a benefit society or to a certain number of members in a specified area. There is no free choice of doctor by the patients.

In both open and closed panel systems, of course, the practitioners are remunerated by a salary based on the capitation rate and the number of members on their respective lists.

The Memorandum

In April 1956 the Federal Council adopted the following resolution: 'That the policy of this Association shall be to ensure a free choice of doctor by the patient and of the patient by the doctor. In pursuance of this policy all future appointments to benefit societies should be on the basis of open panels for general practitioners and specialists unless in exceptional circumstances.' Since the adoption of this resolution, many Branches have experienced great difficulties in implementing the open panel policy because 'exceptional circumstances' were not defined.

When the matter was again considered by the Federal Council in April 1958 it was found to be difficult to define 'exceptional circumstances'. The ordinary dictionary meaning ('conditions which are unusual or out of the ordinary') would not necessarily be satisfactory, because different Branches, where different conditions obtained, might be inclined to view the matter from different angles.

To overcome this difficulty the following resolution, which is the one now in force, was therefore adopted by Federal Council:

'That the policy of the Association in regard to the open panel system shall be to ensure a free choice of doctor by the patient and of the patient by the doctor. In pursuance of this policy, all future appointments to benefit societies and other bodies should be made on the basis of open panels for general practitioners and specialists. Recognizing that there may be practical difficulties in the implementation of this policy, exceptions may be made with the approval of Federal Council or its Executive Committee.'

In implementing the policy laid down by Federal Council, Branches should bear the following points in mind:

- (1) The position of practitioners already holding appointments with a society must not be jeopardized. Only when vacancies occur or new posts are created should the posts be reviewed in the light of the stated policy of the Association.
- (2) Although there has always been some opposition to the introduction of the open panel policy, even within the ranks of Federal Council, members have always agreed with the principle involved viz.: 'Free choice of doctor by the patient and of the patient by the doctor'.
- (3) The reasons for the universal acceptance of this principle were that all councillors were convinced that it would be in the best interest of (a) the patient, who would obtain the best possible

medical service under these conditions, and (b) the medical profession, because all doctors would have an equal opportunity of earning a living by being allowed to participate in the work available.

Of these two reasons the first is, of course, paramount as it is traditional for the interests of the patient to be placed above all else.

(4) At the last meeting of Federal Council it became apparent that Federal Councillors were much more concerned about the principle involved than about the urgency of the immediate implementation of the policy in those societies which, for various reasons, were opposed to it.

(5) It was in fact pointed out and accepted that many principles which are laid down and accepted cannot be immediately implemented, and that the gradual introduction or non-immediate application of the policy to a particular society, would not revoke the principle involved.

(6) In the past some Branches have been hesitant about the granting of 'exceptional circumstances' to certain societies, because they felt that they should loyally and unconditionally uphold the policies laid down by Federal Council. This has, on occasion, resulted in an impasse being reached in the negotiations between a Branch and a society, to the consequent detriment of the patients involved. Branches are therefore now reminded that the Federal Council does not desire to interfere in the autonomy of the Branches regarding contract practice matters, and is in fact anxious that any negotiations between a Branch and a benefit society should not be hamstrung because of a Federal Council resolution.

(7) All Branches are therefore requested to be tolerant in their attitude and to apply the open panel policy in a reasonable manner; to avoid financially embarrassing the society concerned, which embarrassment might possibly lead to a breakdown in the medical service rendered to its members, who are, after all, the patients whose interests must always be of paramount importance.

(8) In other words, where immediate implementation of the policy in a particular society is not possible or practicable, because of economic or other reasons, Branches should aim at a gradual widening of the panel and the implementation of the policy by a process of evolution rather than one of revolution. A society like this should be encouraged to create more and more appointments until the ultimate ideal of the open panel is obtained.

(9) Factors which might influence a Branch in arriving at a decision to recommend exemption for a particular society from the immediate application of the open panel policy in connection with appointments, are, amongst others, the following:

- (a) The income group of its members, and the total number of members belonging to the society.
- (b) The class of member (i.e. their position on the social scale).
- (c) The costs of administration, and the difficulties which the benefit society may have to contend with in introducing the open panel.
- (d) The availability of medical personnel.
- (e) Difficulties which might be experienced by some large societies in arranging for hospitalization and block theatre bookings.

DIE VERENIGING SE FINANSIËLE SAKE

Die aandaag van lede van die Vereniging word gevestig op die nota wat in rooi gedruk is op hulle lidmaatskapsrekeninge en wat hulle herinner aan die Ere-Penningmeester se Spesiale Fonds. Ter verdere verduideliking van hierdie nota het die Ere-Penningmeester die volgende memorandum opgestel:

Uit 'n totaal van ongeveer 5,500 lede het slegs 270 gehoor gegee aan ons beroep om donasies. Ons is dankbaar vir die £1,200 wat op hierdie manier byeengebring is en ons stel die vriendelike wense wat daarmee saam gegaan het hoog op prys. Met die oog op daardie lede wat nog nie tot ons spesiale fonds bygedra het nie, gaan ek nog 'n slag probeer om op 'n eenvoudige manier te verduidelik hoe die geld wat lede bydra gebruik word en waarom ons nie genoeg geld het om die dienste te lewer wat die Vereniging wel lewer nie.

A. Dit kos ongeveer £37,000 om die Tydskrif, wat elke lid vyf ontvang, uit te gee. Hierdie onkoste word egter min of meer

alles uit inkomste uit advertensies gedek sodat ons hierdie saak nie verder hoef te bespreek nie.

B. Die Mediese Agentskappe wat die verkoop van praktyke hanteer dek net mooi hulle eie onkoste.

C. Die res van ons inkomste kom uit 2 bronne: (1) Ledegelde wat teen die tarief van £2 2s. 0d. per lid aan die Hoofkantoor betaal word en wat 'n totaal van £11,300 beloop; (2) Kommissie op assuransiessies wat £4,000 beloop. Die totale inkomste wat dus beskikbaar is om die sake van die Vereniging te behartig beloop ongeveer £15,000.

Laat ons nou kyk na wat van ons verwag word om met hierdie £15,000 te doen:

Salarisse van ons Amptenare

Die volgende is 'n lys van ons personeel (uitgesonderd redaksionele personeel) en hulle vergoeding.

Algemene Sekretaris (ons hoof administratiewe beampte).

Medesekretaris wat die kontrakpraktijkwerk behartig ('n groot hoeveelheid werk word deur hierdie departement gedoen).

Assistent-Sekretaris te Pretoria. (Dit is noodsaaklik om kontakte te maak met die Mediese Raad, Kommissaris vir Werkloosheidsversekering, Kommissaris vir Inkomstebelasting en ander Parlementêre liggame.

Sakebestuurder wat tesame met ander pligte verantwoordelik is vir die hantering van die advertensies in die *Tydskrif*. Die inkomste uit advertensies beloop £37,000 per jaar

Tiksters, boekhouders, sekretaresse van die 3 hoof-sekretarisse, addressograaf-masjienoperateurs, klerke, kantoorbodes, telefoniste. (Elkeen van hierdie persone is ontnisbaar in hierdie groot organisasie. Diegene wat nie weet wat die werk alles behels nie en wat sê dat ons personeel moet besnoei, kan hulle gerus self op hoogte kom stel met die pligte van elke amptenaar)

Huur van kantoorruimte (Kaaipstad, Pretoria, Johannesburg) redaksionele kantore uitgesluit

Herstel van tikmasjiene, skryfbehoeftes, seëls, telefone, assuranties

Uitgawes van afgevaardigdes na 2 Federale Raadsvergaderinge (59 Federale Raadslede), 2 vergaderings van die Uitvoerende Komitee, vergaderings van die Sentrale Komitee i.v.m. Kontrakpraktijk, reisgelde vir verskeie amptenare na spesiale sakevergaderings, opdragte, ens.

Pensioenbydraes

Bydraes aan Mediese Biblioteke

Die totale uitgawe wat uit die inkomste van £15,000 gedeek moet word is dus

Per jaar
£

7,100

1,600

6,700

1,520

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Gelukkig was daar jare toe ons kon spaar, maar gedurende die afgelope 3 jaar het ons ongeveer £21,000 van ons spaargeld gebruik.

Die rede vir ons vermeerderde uitgawes is slegs gedeeltelik te wyte aan verhoogde besoldiging van ons amptenare, en aan verhoogde rentes en ander uitgawes, maar hoofsaaklik aan die verminderde koopkrag van die pond en die uitbreiding van dienste aan ons lede. Die waarde van die pond is nou ongeveer ½ in vergelyking met wat dit 15 jaar gelede was, sodat ons ledes gelde eintlik van £2 2s. 0d. tot £6 6s. 0d. behoort te styg. Dr. Ian Grant het onlangs aan ons meegedeel dat ledes gelde van die Britse Mediese Vereniging gestyg het tot 5½ gn. per jaar net vir die Hoofkantoor en dit ten spyte van 'n ledetal van 75,000. My eintlike punt is dat ledes gelde reeds al in 1956 van £2. 2s 0d. tot £4 4s. 0d. moes gestyg het. Ek kan die ongelukkige storie van waarom dit toe nie gebeur het nie, nie nou hier herhaal nie.

Die Federale Raad mag nie 'n verpligte heffing opleë nie, maar ons kan aan die lede wat dit kan bekostig tog vra om 'n bedrag aan die Vereniging te skenk wat gelykwaardig sal wees aan die bedrag wat hulle gedurende die afgelope 3 jaar sou betaal het—om ons in staat te stel om die belegginge wat ons gebruik het weer op te bou.

Dit is 'n eer en 'n voorreg om vir ons Vereniging te werk en om baie tyd aan dié diens te bestee. Daar is sommige van ons Federale Raadslede wat baie dae van hulle tyd op hierdie manier opoffer. Dit is miskien nie so goed om name te noem nie maar ek wil tog my waardering uitspreek teenoor mense soos drs. Struthers, Sichel, wyle J. S. du Toit, Maurice Shapiro, Grant-Whyte, Armitage, Waks, Schaffer, Turton, Vercueil, Schneider, Robertson—en baie ander. Sommige van hierdie persone gun hulle dit skaars om ooit verlof te neem, nogtans dien hulle die 'Vereniging met toewyding. 'Hulle laste sal baie ligter word as die finansiële toestand van die Vereniging gesond is sodat hulle hulle nie onnodig hoef te bekommer oor watter uitgawes aangegaan kan word en watter nie.

NORISTAN LABORATORIES PRIZE

Messrs. Noristan Laboratories (Pty.) Ltd. will award 50 guineas annually for the best original contribution from a general practitioner published during any calendar year in a recognized South African medical journal. The prize will be awarded for the first time in January 1960. The rules governing the award are as follows:

1. The award will be made by a Committee of experts appointed by the board of directors of Noristan Ltd. The decision of this Committee will be final, and no correspondence will be entered into in connection with such decision.

2. Only original articles by general practitioners registered and practising in the Union of South Africa will be considered by the Committee.

3. The prize winner will be selected in January of each year and the award will be in respect of articles published during the previous calendar year.

4. The Committee will peruse all articles published in the journals recognized and no special application need be made by the author for any article to be considered.

5. The name of the successful medical practitioner will be published in the South African medical press.

NEW PREPARATIONS AND APPLIANCES : NUWE PREPARATE EN TOESTELLE

SULPHACITRO

Westdene Products (Pty.) Ltd. announce the introduction of Sulphacitro, formerly known as Sulphacit, a triple sulphonamide preparation in the form of pleasantly flavoured effervescent granules, manufactured by M.L. Laboratories.

Chemistry. Sulphacitro is a combination of sulphadiazine 0.185 g., sulphathiazole 0.185 g. and sulphamerazine 0.130 g. plus the equivalent of 15 g. of potassium and sodium citrate in one heaped teaspoonful of effervescent granules.

Pharmacology. In sulphonamide therapy alkali citrates and high urinary volumes are necessary to protect against the hazards of crystalluria and renal toxicity. In addition prompt absorption, high blood levels and no gastric intolerance should follow such therapy. Sulphacitro meets all these needs.

(a) Sulphacitro granules provide sufficient citrates for any acetylation of the sulphonamides in the blood and urine.

(b) Sulphacitro ensures a high intake of fluids, since each dose of granules is to be taken with at least half a tumblerful of water.

(c) This pleasantly flavoured preparation provides a fine sus-

pension of the sulphonamides and a solution of citrates for immediate absorption.

(d) In its palatable form Sulphacitro masks the unpleasant and often nauseous effect of alkali citrates.

Indications. Sulphacitro is useful in the treatment of a variety of systemic infections caused by sulphonamide-sensitive bacteria such as coccal pneumonia, meningococcal meningitis, antibiotic-resistant septicaemia, otitis media, urinary-tract infections and dysentery due to *Sh. sonnei*.

Dosage. (a) Adults. Four teaspoonsful immediately followed by 2 teaspoonsful every 4 hours in ½ tumblerful of water.

(b) Children. (1) From 1-3 years, approximately ⅓ rd of the adult dose.

(2) From 4-10 years, approximately ½ the adult dose.

(3) From 11-15 years, approximately 2/3rds of the adult dose.

Package information. Supplied in 2 oz. and 3 oz. wide-mouth bottles.

ACIDEMEL

Westdene Products (Pty.) Ltd. announce the release by M.L. Laboratories of Acidemel, a preparation containing nicotinic

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acid 500 mg. and aluminium clycinate 5 mg. per tablet for the treatment of hypercholesterolaemia.

Pharmacology and indications. In addition to its use as a vasodilator in the treatment of peripheral vascular disease and angina pectoris, good results have been reported in the treatment of Ménière's syndrome and disseminated sclerosis with Acidemel. After the ingestion of 2-8 Acidemel tablets during a 24-hour-period the concentration of serum cholesterol was found reduced in: (1) hypercholesterol patients and (2) individuals with normal cholesterol levels.

Dosage. The average recommended dose is 2 Acidemel tablets

3 times daily after meals for 4 weeks and, when effective reduction of cholesterol is accomplished, 1 tablet 3 times daily is usually sufficient as a maintenance dose. Side-effects such as flushing, pruritus and urticaria are diminished by: (1) administering Acidemel with or after meals and (2) building up the dosage gradually until the full amount is being taken.

If these side-effects still persist after one week of therapy, a temporary withdrawal of Acidemel is recommended.

Packing. Acidemel is supplied as scored tablets of 0.5 g. in packings of 100 and 250. Further information and samples may be obtained from the sole South African distributors—Westdene Products (Pty.) Ltd., P.O. Box 7710, Johannesburg.

PASSING EVENTS : IN DIE VERBYGAAN

Prof. J. T. Irving, M.A., Ph.D., M.D., Director of the Dental Research Unit, University of the Witwatersrand and the South African Council for Scientific and Industrial Research, has been appointed Professor of Anatomy at the Forsyth Dental Infirmary and the Harvard School of Dental Medicine, USA. Professor Irving will assume his new duties on 1 June 1959.

Dr. J. N. Jacobson, recently Professor of Radiodiagnosis at the University of Cape Town, has joined Drs. Komins, Denny, de Villiers and Berezowski, in partnership at 1 Lister Buildings, 195 Jeppe Street, Johannesburg.

Dr. J. N. Jacobson het saam met drs. Komins, Denny, de Villiers en Berezowski te Listergebou 1, Jeppestraat 195, Johannesburg, begin praktiseer. Dr. Jacobson was tot onlangs Professor van Radiologiese Diagnose aan die Universiteit van Kaapstad.

Mr. C. H. Morgan, M.S.R., technical representative of the London Hospital (Ligature Department) Ltd., manufacturers of surgical sutures, has recently arrived in Johannesburg on a 6 months' tour of the Union of South Africa. Mr. Morgan will visit the larger hospitals throughout the country and will look forward to meeting as many surgeons as possible with a view to discussing developments in the suture field. During the period of his stay in this country Mr. Morgan will have the following headquarters: c/o. Petersen Ltd., P.O. Box 5785, Johannesburg, telephone 835-7181; P.O. Box 38, Cape Town; P.O. Box 1684, Durban.

The First Scientific Congress of the Association of Physicians of South Africa was held in Cape Town from 8 to 10 January 1959. Approximately 50 members of the Association of Physicians from all the big centres in the country attended the Congress. It is generally felt that the papers read were of a high academic standard. Special highlights of the Congress, apart from outstanding individual papers, were the sessions on 'Cardiac surgery using the bubble oxygenator' and 'The artificial kidney'. During the Congress it was decided in principle to found a Society for Endocrinology, Metabolism and Diabetes. A Steering Committee was formed and further notice regarding this Society will shortly be published in the *Journal*.

Die Eerste Kongres van die Vereniging van Interniste van Suid-Afrika is in Kaapstad gehou van 8-10 Januarie 1959. Ongeveer 50 lede van die Vereniging van Interniste uit al die groot sentrums in die land het die Kongres bygewoon. Dit word van allerweë gevoel dat die bydraes wat gelewer is van 'n hoë gehalte was. Hoogtepunte van die Kongres, behalwe uitstaande lesings, was die bespreking van en vertoning oor 'Hartchirurgie met die gebruik van die pomp-oksigenator en 'Die kunsmatige nier.' Gedurende die kongres is dit in beginsel besluit om 'n Vereniging vir Endokrinologie, Metabolisme en Diabetes te stig. 'n Reëlingskomitee is saamgestel en verdere informasie oor die Vereniging sal binnekort in die *Tydskrif* verskyn.

BOOK REVIEWS : BOEKBESPREKINGS

POLYMYOSITIS

Polymyositis. By John N. Walton, M.D., M.R.C.P., and Raymond D. Adams, M.D. Pp. x+270. Plates 47. 32s. 6d. net. Postage abroad 1s. 3d. Edinburgh and London: E. & S. Livingstone Ltd. 1958.

Medical literature has long since reached proportions which make it impossible for any single individual to read even a fraction of the vast output, and the stage has probably been reached where even within some special fields it is not feasible, unless one becomes a full-time reader and nothing else, to keep completely abreast of the mass-production efforts of zealous workers whose worth is measured, quite ridiculously of course, only by the number of their publications. Ask the medical librarian for references to the literature on a certain subject and one receives a list yards long that would take months to wade through were it all available, and one despairs of acquiring full knowledge of a subject. Fortunately, there are workers like Walton and Adams, the authors of this excellent monograph—careful and meticulous clinical observers and patient investigators who are able to record their observations accurately and to think clearly and logically about the conclusions to be drawn from their material—and they present us with a book which solves the problem of the literature on polymyositis in a brilliant manner.

Polymyositis is as common as muscular dystrophy in adults and it is essential for every clinician to be fully aware of the condition and its pleomorphism which may be very confusing to the uninitiated. The authors classify the cases into four main groups,

which they describe clearly; the pathological features are dealt with in great detail and here it is important to recognize the non-specificity of the changes in any individual case and the need to be aware of the variations that may occur at different stages and in different muscles. The book has an appendix giving full case protocols, a most laudable innovation in this type of work and one which adds life to the subject.

I can only give this book the highest of recommendations. It must be added to the shelves of every medical library, and the physician, neurologist and pathologist would be well advised to include it in his own personal collection of valued books.

S.B.

ANAESTHESIA FOR NURSES

Anaesthesia for Nurses. By Eric Godwin, L.R.C.P., M.R.C.S., F.F.A.R.C.S. Pp. 98. 12 Figures. 9s 6d. + 6d. Postage. Bristol: John Wright & Sons Ltd. 1957.

The Lectures which the author has given to student nurses and pupil midwives have been adapted for the purpose of this book. In it the author seeks to give the nurse a wider understanding of anaesthetics and to stimulate her interest in an effort to prevent accidents which sometimes follow both ignorance and lack of experience.

For those nurses who may be called upon to assist in emergencies with the administration of an anaesthetic, the guidance of this little book will provide invaluable. It should be a reasonable addition to the bookshelves of the keen nurse.

A.H.T.

OPHTHALMOLOGY

The Year Book of Ophthalmology, 1957-58. Edited by Derrick Vail, B.A., M.D., D.Oph. (Oxon.), F.A.C.S., F.R.C.S. (Hon.). Pp. 423. 90 Figures. \$7.50. Chicago: Year Book Publishers, Inc. 1958.

The Year Book of the Eye, Ear, Nose and Throat has been appearing for more than 50 years. This shows that a definite need exists for annual reviews of this type where the reader can with the minimum effort find all the important articles summarized for him, summaries of sufficient length to be readable and containing the requisite detail and accompanied by editorial criticism and assessment.

The present issue is the first of the year books to be devoted entirely to the eye and the same system of adequate summarization of important articles and critical comment is followed. As there is now more space available, more articles have been extracted and the range is more extensive. In addition there is a complete survey by Irving H. Leopold on recent advances in ocular therapy, in which the whole regime of treatment of many eye conditions is remarkably well classified.

This then is a worthy successor of a long line of distinguished ancestors and deserving the continued support of all those interested in ophthalmological and allied topics.

L.S.

CORRESPONDENCE : BRIEWERUBRIEK

SURGICAL TREATMENT OF RUPTURE OF THE MEMBRANOUS URETHRA

To the Editor: One of the problems following surgical treatment of rupture of the membranous urethra is the development of a stricture in this area.

In a small personal series of 7 cases of complete rupture of the membranous urethra, 4 have developed some degree of stricture formation. Of these 1 required further surgery and a Badenoch pull-through operation was performed. The other 3 needed dilatations over variable periods of time. Of the remaining 3 cases 2 were satisfactory and 1 patient did not attend the outpatient department for follow up.

It was therefore pleasing to read that Mr. Kisner,¹ in the *South African Medical Journal* of 15 November 1958, has described a very ingenious method of preventing this stricture formation by securing apposition of the prostate with the triangular ligament by means of a perineal traction suture. I have had occasion to use this suture in a case which recently presented with a complete rupture of the membranous urethra.

The method as described was to introduce the first stitch from the perineum, to take a bite of the anterior prostatic capsule and then to emerge through the perineum on the other side by inserting the needle from within. In this particular case I found it easier to introduce both sutures from within.

The convex aspect of a Colts needle was placed on the palmar aspect of the index finger and the finger then inserted alongside the prostate until the triangular ligament was felt. A finger was then placed on the perineum to act as counter pressure and the needle passed through.

I feel that this procedure was easier technically and certainly diminished the chance of impinging on bone and of passing through vital structures such as the urethra and the prostate. I observed at operation that very good apposition was obtained on tying this traction suture.

With reference to the manner of inserting a Foley's catheter into the bladder, I wish to make the following comments: Rail-roading a Foley's catheter can certainly give rise to many snags and difficulties. By merely attaching 2 catheters or a catheter and sound by a length of silk is not always satisfactory. A technique which I have found very simple and efficient is as follows: A sound is manipulated into the bladder through the anterior urethra. (As indicated by Mr. Kisner, a finger in the prostatic urethra is very useful and certainly more satisfactory than a sound.) When the sound has emerged into the bladder the penile end is depressed in order to make the tip more accessible. The tip of a conventional soft rubber catheter is then cut off and this is threaded over the metal sound. The metal sound with an expanded tip is particularly useful for this purpose since it ensures a firm attachment. The sound (with the attached catheter) is then pulled out through the external meatus, and the sound is removed. The tip of a Foley's catheter is then threaded into the open end of the soft rubber catheter. This procedure is facilitated by passing the end of a metal sound through the side hole of the terminal end of the Foley's catheter towards the distal blunt end, and putting it on the stretch.

This manoeuvre has the effect of narrowing the diameter of the distal end of the Foley's catheter, and by making this end rigid, the insertion of the Foley's catheter into the lumen of the soft rubber catheter is ensured.

After removing the metal sound the engagement is very good. In order to make sure that these catheters do not disengage, a stitch is inserted through the outer ensheathing soft rubber catheter and the inner Foley's catheter. The Foley's catheter is then pulled up into the bladder, the stitch cut and the soft rubber catheter removed.

J. Nayman
130 Bezuidenhout Avenue
Bez Valley North, Johannesburg
6 January 1959
*Surgical Registrar,
Coronation Hospital and
University of Witwatersrand*

1. Kisner, C. D. (1958): *S. Afr. Med. J.*, 32, 1105.

TREATMENT OF BILHARZIASIS WITH ANTIMONY DIMERCAPTOSUCCINATE

To the Editor: With reference to the article *Treatment of Bilharziasis with Antimony Dimercaptosuccinate*¹ by R. J. Pitchford and W. O. Harrison, published in the issue of the *Journal* of 27 September 1958, I wish to point out that:

1. The authors state 'Side-reactions in patients with double infections of *S. haematobium* and *S. mansoni*, except those receiving light doses of the drug, were numerous, severe and sometimes dangerous.'

It is significant that side-reactions occurred exclusively in connection with intensive Blair-Alves type 2-day treatments. Severe side-effects occurred in 6 patients receiving 3-6 doses of 0.4 g. at 8 hours' intervals, but were absent or negligible in 5 patients receiving 7 such doses.

It appears that such intensive TWSb courses produce vastly different individual tolerance responses in the type of patients with double *S. haematobium* and *S. mansoni* infections treated by the authors.

I would conclude that in these patients intensive treatment is contra-indicated and that the well-tolerated schedules (1 dose per day) should be explored further.

2. The authors state 'Of the 29 cases examined after treatment 17 (56.6%) were still discharging viable *S. mansoni* ova and probably must be considered failures. Table I shows that there was no difference in the number of positives with the different dosages used.'

An analysis of Table I indicates:

- 2 g. daily \times 10 = 2 negatives out of 3 cases examined.
- 4 g. daily \times 5 = 0 negative out of 0 cases examined.
- 34 g. t.d.s. for 2 days = 4 negatives out of 12 cases examined.
- 4 g. 8 hourly \times 6 = 1 negative out of 6 cases examined.
- 4 g. 8 hourly \times 7 = 4 negatives out of 5 cases examined.

Thus Table I shows clearly a therapeutic effect, dependent on the dose level, with a significant therapeutic result, i.e. 80% negatives, is to be expected, at the highest dose level.

Nevertheless, the authors conclude 'The drug is not effective in the treatment of *S. mansoni* in any dosage schedule used in the present series of patients from the Transvaal or Mozambique.'

This conclusion of the authors is not substantiated by their own findings.

Ernst A. H. Friedheim

333 West 52nd Street
New York 19, N.Y., USA
3 January 1959

1. Pitchford R. J. and Harrison, W. O. (1958): *S. Afr. Med. J.*, 32, 669.

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